

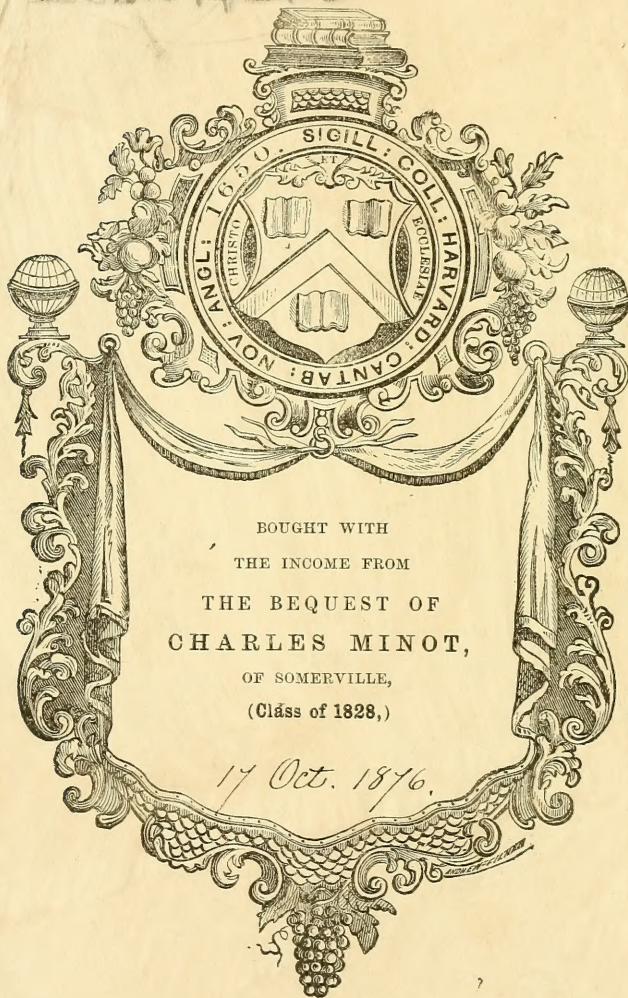
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BLACK JACKDAW.

A HISTORY
OF THE
BIRDS OF EUROPE,

NOT OBSERVED IN THE BRITISH ISLES.

BY
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Hypothesis of Mr. Darwin," &c., &c.*

SECOND EDITION, ENLARGED.

VOL. II.

"Join voices all ye living souls; ye birds
That singing up to heaven-gate ascend
Bear on your wings and in your notes His praise."
MILTON'S PARADISE LOST.

○
LONDON:
GEORGE BELL AND SONS, YORK STREET, COVENT GARDEN.

M DCCC LXXV.

KG 12054 (2)

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1876, Oct. 17.

~~Trans. to Mus. of Comp. Zool.~~

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BIRDS OF EUROPE,

NOT OBSERVED IN THE BRITISH ISLES.

ORDER II.—OMNIVORÆ.

Family *CORVIDÆ*. (*Bonaparte*.)

Genus—*CORVUS*. (*Linnæus*.)

Generic Characters.—Beak straight to its base, thick, compressed laterally, bent towards the tip, edges cutting. Nostrils basal, open, hidden by hairs, and directed forwards. Three toes before and one behind, nearly completely divided. Tarsi longer than the middle toe. Wings acuminate; first quill feather least in length, second and third shorter than the fourth, which is the longest.

BLACK JACKDAW.

Corvus monedula-nigra.

<i>Corvus monedula-nigra</i> ,	FRISCH. VORST: Der Vogel Deuts., 1739-63.
“ “	LINNÆUS. GMELIN. BRISSON; Ornith., v. ii, p. 28, 1760.
“ “	SCHLEGEL; Revue, 1844.
“ <i>Spermolegus</i> ,	VIEILLOT; Dict., 1817.
“ “	TEMMINCK; Man., 1815.
“ “	KEYSERLING ET BLASIUS.
“ “	SCHINZ. DEGLAND.

Specific Characters.—First quill feather longer than the ninth; second shorter than the fifth; third and fourth equal. Length twelve inches six lines.—TEMMINCK.

It has been doubted by some modern ornithologists whether this bird is really distinct from, or only, as considered by Latham, a variety

of the Common Jackdaw. Degland says:—"This is a very doubtful species, I have never seen it. An individual, said to be this species, killed in a garden at Bergues, I am convinced is only a variety of the Common Jackdaw. The specimens indicated by M. Millet, in the 'Faune de Maine-et-Loire,' are also Common Jackdaws, according to M. de Lamotte, by whom they have been examined. Vieillot said that a young individual was in the cabinet of the Count di Riocourt, and an adult in the Museum of Natural History at Paris. M. Selys Longchamps has examined the Paris specimen and found it different, but thought that it had come from North America, because he found it formed part of a lot of skins bought in Poland, and among which were some American species,—among others *Sylvia anthoides*."—"Orn. Europ.," vol. i, page 321.

But this after all is only negative evidence, and not of a very strong kind—for this species is not included among Prince C. Bonaparte's "Birds of North America." Schlegel admits it into the European Catalogue, but refrains from making any remarks upon it, because he had never seen the bird; and it is not included in Machado's "List of the Birds of Andalusia," published in 1854, though Spain has been said to be its head quarters.

On the other hand it has been admitted as a species by Frisch in 1739-63; by Gmelin; by Brisson in 1760; by Vieillot in 1817; Temminck in 1835; and Bonaparte, Schlegel, etc., of more modern days.

Brisson, one of the most correct naturalists that ever lived, describes it very minutely and clearly. Temminck gives a diagnosis, which as will be seen by reference to that of our Common Jackdaw, establishes an important distinction between the two birds. Under these circumstances, I think the time has hardly arrived at which it may safely be excluded from the European species; though I admit it with doubt.

It is said by Vieillot to be found inhabiting and breeding in several of the French provinces, and Temminck says he has been assured that it is common in Spain. Nothing appears to be known of its habits or propagation.

The following is Brisson's description:—"A little less than the Common Jackdaw. Length from tip of beak to end of tail twelve inches and a half, and to the end of the claws eleven inches and three-quarters. Beak fourteen lines; tail four inches and three-quarters; tarsi one inch six lines and a half. From middle of three anterior toes to their junction with claws six lines; the two lateral toes the shortest; hind toe intermediate between them and middle toe. Wings extend to three-fourths of length of tail. The whole of the body covered with brilliant black feathers. Primaries same colour above,

beneath like all the under parts, not so splendid a black as the upper. First primary shortest, fourth longest of all. Tail composed of twelve feathers, same colour as secondaries, namely, brilliant black above, duller black below. There is on each side of the head a crescent of a deep black, of which the concave part is turned towards the eyes. The feathers covering the nostrils are long and thick. The eyes are surrounded with small white points; pupils black, irides bluish. Beak, feet, and claws black.

Habitat, ruined towers and walls, where it builds. In the Museum of M. de Reaumur."

In this description it will be seen that Brisson differs from Temminck in the length of the primaries. First shortest, fourth longest; while Temminck says:—"First quill longer than the ninth, third and fourth equal."

The following is M. Temminck's diagnosis of *C. monedula*, the Common Jackdaw:—"First quill shorter than the ninth, second and fifth equal, the fourth shorter than the third."

Figured by Buffon, pl. Elum 522; Roux, Orn. Prov., pl. 133; Gould, Supp., pl. B. of E.

OMNIVORÆ.

CORVIDÆ.

Genus—PICA. (*Brisson.*)Sub-genus—CYANOPICA. (*Bonaparte.*)

Generic Characters.—Beak middle-sized and strong, compressed laterally, slightly arched, hooked at the tip, and garnished at its base with short stiff feathers; nostrils oblong; middle and external toe united at their origin. Wings short and rounded; first quill feather very short; fourth or fifth longest. Tail long and graduated.

AZURE-WINGED MAGPIE.

*Cyanopica Cooki.**Cyanopica Cooki,**Pica Cyanea,*

“ “

“ “

“ *Europæa,**Corvus Cyanus,*

“ “

*Garrulus Cyanus,**Pica Cyana,*

“ “

*Pic turdoides,**Blaue Elster,**Blue Crow,*

BONAPARTE. GOULD.

WAGLER; Syst. Av. (1827.)

BONAPARTE. SCHINZ. SCHLEGEL.

BREE; 1st. ed. BLASIUS, var. *B.*

SCHLEGEL.

PALLAS; App. to Voyage. (1776.)

LATHAM. GMELIN.

TEMMINCK.

KEYSERLING ET BLASIUS.

DEGLAND.

OF THE FRENCH.

OF THE GERMANS.

LATHAM.

Specific Characters.—Head deep black; wings and tail blue; apex of quill feathers white. Length of adult male and female twelve to fourteen inches.

THIS bird, the most beautiful member of its family, is an inhabitant of Spain, and, according to the celebrated traveller Pallas, of Eastern Asia.



AZURE-WINGED MAGPIE.

In its habits the Blue Magpie differs little from its congener, our well-known British Bird, but Temminck says that it more especially feeds upon insects.

According to M. Riocour it builds in Spain in trees; its nest composed of slender sticks. He does not state the number of eggs, but we may presume they are the same as our Magpie—five or six, rarely seven, very rarely eight.

Canon Tristram in his "Ornithology of Northern Africa," (Ibis, 1860,) records the occurrence of this species in Algeria:—"While searching in the open wood I was startled by a long-tailed blue bird which I felt certain must be the Blue Magpie (*Pica Cooki*). Not having heard of it as an inhabitant of Algeria, I went eagerly in pursuit, and again and again caught sight of it, but never within shot. It was wild and wary, but took no long flights. I do not feel the slightest doubt as to its being the Blue Magpie of Spain, probably only a straggler."

It is also found in Portugal, as the Rev. A. Smith informs us (Ibis, 1868). "This beautiful bird was the chief prize I proposed to myself to procure before I started for Portugal. But though I wandered for days in search of it in the most likely spots, I never saw it alive; indeed Prof. Bocage assured me that, though by no means rare, it is very local, and of so exceedingly shy a nature, that it is seldom seen, and that though he has employed collectors expressly to hunt for it, he cannot obtain additions to the three specimens possessed by the Lisbon Museum."

Although it abounds in Spain, as we are informed in the most interesting papers of Lord Lilford and Mr. Howard Saunders, on the ornithology of that country, it appears even there to be local.

Lord Lilford writes, (Ibis, 1866, p. 378,) "It is a remarkable fact, that *Cyanopica Cooki* should be quite unknown in the neighbourhood of Aranjues. I could not discover that any of the keepers or woodmen were acquainted with it (although it is so plentiful about Madrid) at a distance of twenty miles. The only reason that I can imagine to account for its absence, being the want of the evergreen oak, to which it certainly exhibits a very remarkable partiality. Manuel returned from Madrid bringing several eggs of this Magpie from the Caso de Campo."

Mr. Howard Saunders in the same journal for 1871, p. 222, remarks, "*Cyanopica Cooki*, 'Mohino, Rabilargo,' of the Spaniards, though local, is extremely abundant in the wooded districts, becoming rare in such cultivated portions to the east, as Valencia and Murcia. It breeds in small colonies, making a nest somewhat like that of a Jay. I once found seven eggs in one nest, but the usual number is five or six.

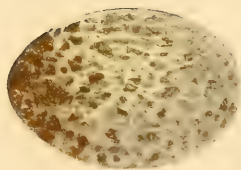
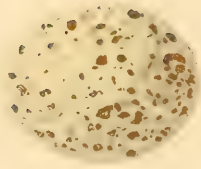
So far as I am aware, the Great Spotted Cuckoo never selects the nest of this bird for her egg."

In an interesting series of papers which he is publishing on the Nests and Eggs of the South of France, in the "*Revue de Zoologie*," M. Moquin-Tandon has one upon the nidification of the Common Magpie, (March, 1858, p. 98,) which will bear one or two extracts here, notwithstanding the subject is so familiar to every bird-nesting youngster in this country.

"The nests are of three principal forms. First, horizontal cup-like nest, not domed. Second, the same shape, but with one side raised. Third, an irregular spherical nest, with a dome more or less thick, and a lateral opening. Of fourteen nests, nine had the first form, three the second, and two the third. All the nests were upon large trees—poplar, oak, beech, chesnut, and walnut. Those with a raised side were fixed in forked branches, and on the side which had most support, the screen or covering was placed. One nest only, which was in the broken branch of an Italian poplar, had this covering without any support, but it was not so high as usual. The screen had always a reference to the prevailing wind. The two nests protected by a dome differed from each other; in one the covering was almost transparent, whilst in the other it was thick so as to keep out rain. One of these last had a transverse diameter of twenty-two centimetres, (eight inches and four fifths,) and the opening seven centimetres high.

These nests were formed outside of little sticks and thorny branches. In the framework of the largest was the branch of a plum tree as thick as one's finger, and forty centimetres (sixteen inches) long. In four nests the materials were united by clay mortar. All were lined with flexible roots, stalks of grasses, wool, and feathers."

Of one hundred and eighty-seven eggs examined by M. Moquin-Tandon, one hundred and eleven had the ordinary size, (thirty to thirty-two millemetres by twenty to twenty-five;) sixty-six were a fifth or sixth less; one only a third less; one without yolk; five increased in length both ends alike; four obtuse and much shorter. These one hundred and eighty-seven eggs differed in colour as follows:—One hundred and thirty-five were of the natural colour, that is, dirty white, more or less clear, with spots of olive brown and dark green, particularly at the greatest end. Twenty-seven had few spots, and a well marked circlet at the greatest end. Four with a circlet well-marked at the smaller end, of which one had the rest covered with spots. Eleven were finely dotted, principally at the larger end. Four had three or four dots slightly marked about the large end. Three were



1. AZURE-WINGED MAGPIE.

2. BLACK-HEADED JAY.

3. SIBERIAN JAY.

greenish, without spots. Two bluish, without spots. One dirty white, without spots, and a slight blue shade.

The Azure-winged Magpie is stated by Latham to build its nest in the same manner as the Common Magpie, which will give the above quotations sufficient interest to justify my inserting them here. He also says that it is a very timorous bird, and withal a noisy, crafty, clamorous species. It appears in the eastern part of Asia in flocks in April.

The adult male and female have the top of the head as far as the nape a deep glossy black; mantle, back, and scapularies, ash-colour; throat and front of neck pure white; crop, flanks, and belly, greyish ash, whiter in the middle; wings and tail of a brilliant azure blue; quill feathers black, the first entirely, but the rest bordered with azure at the base, and tipped at the points with white; first quill feather half as long as the second. Tail blue, tipped with white. Beak and feet black.

Figured by Gould, Azure-winged Magpie.

The egg figured, which gives the usual size and markings, is from my own collection. It was given to me by Lord Lilford, and is one of the eggs alluded to in the extracts of that nobleman's paper in the "Ibis," above quoted.

OMNIVORÆ.

Family CORVIDÆ.

Genus GARRULUS. (*Brisson.*)

Generic Characters.—Beak medium size, thick, straight, compressed, with cutting edges, abruptly bent, and slightly dentated at the tip. Nostrils basal, lateral, and hidden by setaceous feathers; feet like the crows. Wings of medium length, rounded; first three quill feathers graduated, the fourth, fifth, and sixth of nearly equal length, and the longest in the wing. Tail square or slightly rounded; feathers of the head elongated, and capable of being raised into a tuft at will.

BLACK-HEADED JAY.

*Garrulus Krynicki.**Garrulus Krynicki,*

“ “

“ *iliceti,**Geai à culotte noir,*

KALENICZENKO.

DRESSER; fig. *unica*, B. of E., p. 17.DEGLAND; after Russian authors in
litt. (1846.)

OF THE FRENCH.

Specific Characters.—Forehead greyish white, each feather with a black spot extending over the terminal portion of the feather; entire crown to nape black; feathers elongated; nape and back greyish, much more grey in tinge than in Common Jay, but washed with rufous towards rump; rump and under tail coverts white. Length fourteen inches and a half; wing seven inches four lines; tail six inches four lines; tarsus one inch eight lines.—DRESSER.

IN introducing a “Black-headed Jay” into the first edition, I gave Degland’s reason for doubting whether I had got hold of the right bird. It appears that Degland was right, and that Gene’s Black-headed Jay does not occur in Europe, and that the Caucasian race



GOLDEN-HEADED JAY.

was the only one that does. Degland proposed the name "*iliceti*" for this bird, but it appears the less euphonious word "Krynicky" has priority to designate the Black-headed Jay now introduced.

It occurs in Turkey, being as common near Constantinople as its cousin, our own Jay, is in England. This bird was originally collected in the Caucasus by Professor Krynicky, and in describing his specimens Dr. Kaleniczenko gave its range as "Taurus, especially near Sudak and Theodoria, and in the Caucasus near the springs of Piatigorsk and the town of Georgieosk, where it is far from rare, but it does not extend as far north as the Ukraine."—Dresser.

Its habits are similar to those of the Common Jay, and I cannot do better than quote here some interesting and original observations made upon the nidification of the latter in the "Revue de Zoologie" for March, 1858:—

"It is well known that the Jay builds in oaks, chesnuts, birches, and beeches, at a height of from five to eight metres, sixteen to twenty-four feet; it rarely chooses bushes. Its nest is in the form of a shallow cup, more or less extended. I have seen a large number of them, and they are all very much alike. Four of them averaged about three inches high, six inches in diameter, and two in depth.

In the materials which compose their nests are found on the outside small branches and twigs of oak, chesnut, and beech, and inside slender roots of heath and stalks of grasses.

The eggs of the Jay are in number from four to seven, and of a dark grey, with a more or less bluish, greenish, or reddish shade, with small olive-coloured spots in great number very close together.

These eggs vary very much in colour. In 1838 one hundred and three were brought to me from the Black mountain near Revel, some fresh, the others hatched. I noticed in this number fifty-six of a greenish grey, finely and indistinctly spotted with olive green, (this is the type;) twenty-one less grey, rather bluish, with spots of the same colour; fifteen grey, slightly reddish, and spots of the same colour; four dark olive grey, with spots very indistinct; six greenish grey, nearly without spots; and one a fourth smaller, colour normal."

The figure of the bird is from a skin sent to me by Mr. Dresser, but not the one from which his beautiful figures are taken; that of the egg is from a specimen in my own collection, taken by Dr. Krüper near Smyrna.

OMNIVORÆ.

Family CORVIDÆ.

Genus GARRULUS. (*Brisson.*)Subgenus PERISOREUS. (*Bonaparte.*)

SIBERIAN JAY.

*Garrulus infaustus.**Garrulus infaustus,*

" "

VIEILLOT; Dict. vol. 12, p. 478.

SPARRMAN. GOULD. TEMMINCK;

Man., 1835.

Lanius infaustus,

LINN.; S. N. 1766.

Corvus infaustus,

LINN.; Faun. Suec. LATHAM.

" "

TEMMINCK; (1820.)

Dysornithia infausta,

SWAINSON; App. Faun. Bor. Am., p. 495.

Corvus mimus,

PALLAS; Faun. Russ.

" *russicus,*

GMELIN; Syst., p. 373.

" *sibiricus,*

BODDAERT.

Geai boreal—Geai imitateur,

OF THE FRENCH.

Gemeiner meisenheher,

OF THE GERMANS.

Specific Characters.—Top of the head and cheeks brownish; beak grey; tail reddish ash, slightly rounded. Length twelve to thirteen inches.

THIS bird, as Temminck remarks, and its congener, *G. Canadensis*, form the natural passage from the Crows to the Nutcrackers, the only European species of which is in the British list. They have the same straight beak as the latter bird, but it is shorter. Swainson, in the Appendix to the Aves of the Fauna Boreali Americana, has formed a distinct genus, under the name of *Dysornithia*, of which he gives the American Jays—Canadian and Short-billed—with this bird as the type; thus carrying into practice the remarks acutely made by Temminck that these Jays form good species for multipliers of genera, and



SIBERIA

that among the form *Omnivore* they will find a vast field for the development of their new views. I hope this observation will not be construed into any disparagement of so great and original a naturalist as Swainson. The accuracy of his descriptions, the clearness and elegance of his language, the able criticism by which he unravelled the obscurity which the verbiage and synonymic lumber of many bygone writers had thrown around different species, will long render his name distinguished among the philosophical naturalists of the age which he adorned. But with all this it must be admitted that in the separation of closely allied species into different genera, often to favour his well-known views, he has done much to retard the attainment of a natural system of classification. The Jays were originally classed by Linnæus among the Crows. Temminck and others followed the same plan. Brisson, however, originally had classed them separately, under the generic name of *Garrulus*, which Vieillot, in 1817, restored, and he has been followed by almost all other authors of eminence, including Temminck, in the third edition of his Manual.

There have been few if any naturalists equal to Brisson for accuracy of observation, and the writers on ornithology of the present age paid a just tribute to his genius, by adopting his classification of this and many other well-defined groups. No classical learning nor minute analysis can ever make a Jay anything else than a Jay, and in this as in many other branches of natural history, we are apt to lose sight of real natural affinity in a refined hair-splitting philosophy which equally retards the study and the knowledge of nature.

Though Asia is given as a locality for the Siberian Jay, it is almost exclusively confined to Northern Europe, Temminck says entirely. It is found in Norway, Sweden, Lapland, Russia, and Siberia, where it is not uncommon. Temminck says that in Norway it bears the name of the Bird of Misfortune. It generally remains, according to M. Bore, squatted on the fork of the branches near the trunk of the tree, from which it sends forth a very piercing sonorous cry. It is a bold bird, and will steal flesh wherever it can. It also feeds on caterpillars and insects, mice and small birds.

It nests among the firs and pines, three or four yards from the ground, and makes its nest of moss and fibres, hairs and feathers. It lays five or six eggs, smaller than those of the common magpie, of a bluish grey, with the spots darker, some of which congregate round the larger end, others round the smaller.

Mr. Wolley found the eggs in his visits to Lapland in 1857 and 1858, and there were five in each of his catalogues for these years. He says, "Common as this bird is, and obtrusive as its habits for

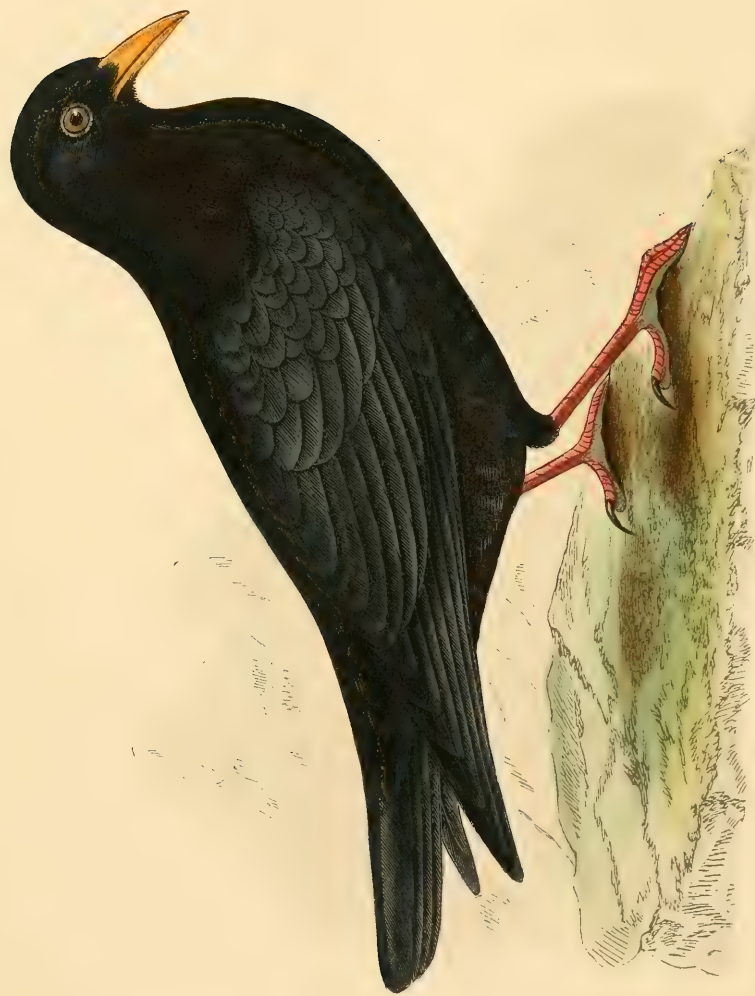
three-parts of the year are, its eggs are perhaps the most difficult to procure of any. Before winter has shown a sign of departing, it begins to prepare its nest, and in doing so exercises all the cunning of its tribe to keep concealed the selected spot. Its eggs are consequently still unknown to most collectors, while in some cabinets they are represented by well-known varieties of those of the Magpie, to which indeed they bear but slight resemblance. It requires long familiarity with the habits of this bird to know when and how to watch it to its nest, whose proximity it is so careful not to betray by any observable marks of anxiety."

The adult male and female have the head tufted, and blackish brown; the feathers which cover the nostrils, and those at the base of the beak, white. Plumage above cinereous. Lesser wing coverts and the under part of the wings, rump, abdomen, and all the lateral quills of the tail a beautiful russet; the two middle quills of the tail of an ashy grey. Beak black; feet brown.

The young has the head of a less dark brown, with the feathers of the tuft shorter; below the ash-colour is browner.

Figured by Gould, (Siberian Jay,) "Birds of Europe;" Buffon, "Pl. Enlum.," 608, (Geai de la Siberia;) Schinz, "European Fauna;" and Mr. Dresser, "Birds of Europe."

The figure of the egg of this bird is from a specimen in my own collection, which was taken at Muonioniska, and sent to me by Dr. Meves of Stockholm with two more from the same nest. Out of the nine authentic eggs in my collection, two are a good deal elongated, and others show a tendency to have the blotches thicker at the smaller end of the egg. They were all taken in Sweden and Lapland.



ALPINE CHOUGH.

OMNIVORÆ.

Family CORVIDÆ.

Genus PYRRHOCORAX. (*Cuvier.*)

Generic Characters.—Beak middle sized, compressed, rather slender, slightly curved above, and very slightly hollowed out at the point; nostrils basal, lateral, ovoid, and concealed by stiff feathers. Feet strong and thick like those of the crows; tarsi longer than the middle toe; toes four, almost entirely separated; claws strong and hooked. Wings long and pointed, the fourth and fifth quills longest. Tail rounded.

ALPINE CHOUGH.

Pyrrhocorax pyrrhocorax.

<i>Pyrrhocorax pyrrhocorax,</i>	VIEILLOT; 1816.
“ “	TEMMINCK; Man., 1820.
“ “	SCHINZ. SCHLEGEL.
“ <i>alpinus,</i>	CUVIER; Reg. An., 1829.
“ “	VIEILLOT; Dict. et Faun. France,
	p. 125, 1817.
“ “	LESSON; Orn., 1831.
“ “	CH. BONAPARTE.
“ “	KEYSERLING ET BLASIUS.
<i>Corvus pyrrhocorax,</i>	LINNÆUS; S. N., 1766.
“ “	GMELIN; Syst., 1788.
“ “	LATHAM; Ind., 1790.
“ “	MEYER ET WOLFF, 1810.
“ “	TEMMINCK; Man., 1815.
<i>Corvus cokallino,</i>	Storia Naturale Degli Uccelli, 1767.
<i>Choucas des Alps,</i>	OF THE FRENCH.
<i>Gemeine alpenkräke,</i>	OF THE GERMANS.

Specific Characters.—Beak shorter than the head, rather slender, and yellow. First quill feather short, the second longer than the seventh, the fourth the longest of all. Plumage black. Feet red or black. Length sixteen inches.

THE Alpine Chough is not only separated specifically from our well-known Cornish Chough, but has been placed by Cuvier in a separate genus, sixty-one genera from it; some real or fancied difference in the beak being the reason assigned for this remarkable distinction of two birds, so closely allied that it is almost difficult to distinguish one from the other. The Alpine bird has a yellow instead of a red beak, and is rather less than the Cornish species; in other respects, in form and colour, feet, nostrils, wings, and tail, they are absolutely the same. In habit they are also identical, and M. Temminck mentions that in the high Alps he has often seen the two species united together in large flocks.

The Alpine Chough is common in the Alps, Pyrenees, and in Greece. They inhabit the highest valleys of the Alps, in the neighbourhood of regions covered with perpetual snow, from which, Temminck observes, they never come down into the plains till all nourishment fails them.

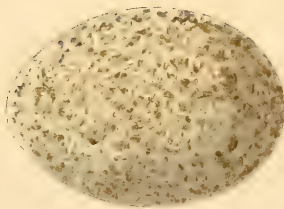
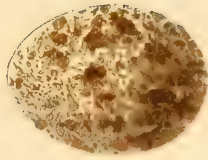
They nest in the clefts of the most precipitous rocks, and of ruins and towers in the villages of the highest mountains. They lay four or five eggs—whitish with spots of a dirty yellow.

They feed upon grain, insects, carrion, small crustaceans, berries, worms, in fact everything they can get.

Their moult is simple and ordinary; the sexes are scarcely to be distinguished externally, and the young of the year are known by having the beak and feet blackish, the old birds having those parts covered with yellow or bright red.

From a letter with which I have been favoured by Mr. Tuck, of Wallington, Herts., containing some valuable remarks about the birds which he observed near Pau, in the south-west of France, I extract the following:—"The Alpine Chough is often seen among the mountains, sometimes in large flocks of nearly two hundred, as they were at the end of March in the Vallée d'Ossau. They and the Red-legged Crow seem about equally distributed there."

This bird occurs frequently in Greece. The Count Von der Mühle, in his "Beitraege zur Ornithologie Griechenlands," page 54, says:—"The Alpine Chough is found in all the mountain range of Greece, as well in Lacedemonia as in Rumelia; it is also found in Illyria, where it abounds in the volcanic rocky caverns formed on the level land. These caverns became the dwelling-place of incredible flocks of Alpine Choughs, Pigeons, (*Columba livia*,) and Jackdaws. I generally visited one of these caverns every morning, and when I looked into it there arose such a noise from the mingled voices of its various inhabitants, that I was positively deafened by it. These



1. GREAT GREY SHRIKE.

2. SARDINIAN STARLING.

3. ALPINE CHOUGH.

caverns are filled with copsewood. If a stone were thrown in, the birds would rise by degrees and fly quickly away. One day a friend and I threw down a piece of rock, and no words can describe the astounding cries which rent the air."

Latham gave the following concise description of this bird:—"Size of a Jackdaw. Bill rather more elongated and yellow. Plumage wholly black; legs and claws black or yellow. Inhabits the Alps; has a sharp and disagreeable voice. Lives upon grain, and does much damage to the harvest. Flesh pretty good eating."

My illustration of the egg of this species is from one in my own collection, sent to me by the late Herr Seidensacher, of Cilli, in Styria. It was taken in the Pyrenees.

OMNIVORÆ.

Family CORVIDÆ.

Genus STURNUS. (*Linnaeus*.)

Generic Characters.—Beak nearly as long as the head, straight, wider than high, slightly obtuse, and depressed; base of the upper mandible encroaching upon the forehead; tip much depressed, and not hollowed. Nostrils basal, lateral, and half closed by a membrane. Three toes in front and one behind; exterior toe joined at its base to the middle one. Wings long; first quill feather almost obsolete, second and third longest.

SARDINIAN STARLING.

Sturnus unicolor.

<i>Sturnus unicolor</i> ,	MARMORA; Della Acad. di Tor., 1819.
“ “	TEMMINCK; Man., 1820.
“ “	VIEILLOT; Faun. Fr., 1828.
“ “	BONAPARTE. SCHINZ. GOULD.
“ <i>vulgaris unicolor</i> ,	SCHLEGEL; Revue.
<i>Sturno nero</i> ,	SAVI.
<i>Etourneau unicolore</i> ,	FRENCH.
<i>Einfarbiger staar</i> ,	GERMAN.

Specific Characters.—Plumage black without spots; feathers of inferior parts very long, tapering, and drooping from base of the neck. Length nine inches.—DEGLAND.

THE Sardinian Starling was discovered by Marmora, and described by him in the “Memoirs of the Academy of Turin,” for August, 1819. Since then it has been found in Algeria, and it is known to pass the winter in company with the Common Starling on the African coast of the Mediterranean, which is contrary to the opinion expressed by Marmora at the time he wrote his memoir.

It is easily distinguished from the Common Starling by the specific



SARDINIAN STARLING

characters at the head of this notice. The males have the drooping feathers from the neck longer than the female.

According to Temminck it is found in Sardinia among the rocks, where it builds, and it flies about and rests on the houses like its congener.

Its food and mode of building is exactly the same as the Common Starling.

The male and female are entirely black, without spots, having a reflection of purple, but less so in the female. The base of the beak is blackish, with a yellowish tip. Feet yellowish brown.

The young before the first moult are of a grey brown, always darker than the young of the Common Starling. After the second moult, and during the winter it has small whitish spots on the feathers, which, however, disappear in the spring without a double moult.

The illustration of the egg is from a specimen in my own collection, sent to me by the late Herr Seidensacher, of Cilli, in Styria. It was taken in Sicily. The bird is from a skin in my own collection, killed at Gibraltar by Mr. Savile Reid.

I may take this opportunity of observing that Mr. Small, a bird-stuffer and naturalist, of George Street, Edinburgh, had in his possession when the first edition was published a male specimen of the Abyssinian Roller, (*Coracias abyssinica*,) which was killed near Glasgow a year or two ago. Mr. Small had the bird in the flesh, and preserved the skin himself. He says the female was also obtained a short time after, but forty miles distant from where the male was killed. Mr. Small is a well-known naturalist, and I have not the slightest doubt that the statement is in every point correct; but as I am not aware that this bird, which is distinguished by the two long processes at the end of the outer tail quills, has ever been observed in Europe, and as there is a possibility of the two birds having escaped in confinement, I do not feel justified in introducing it into this work. I notice it here as its place would have been that preceding the bird I have just described.

GREAT GREY SHRIKE.

ORDER III.—INSECTIVORÆ.

Family LANIDÆ. (Bonaparte.)

Genus LANIUS. (Linnæus.)

Generic Characters.—Beak medium size, robust, convex, and much compressed; superior mandible strongly curved at the tip, forming a hook; base destitute of a cere, covered with rough hairs directed forwards. Nostrils basal, partly lateral, almost round, closed by an arched membrane, and frequently nearly concealed by the hairs. Tarsi longer than the middle toe; three toes in front and one behind, entirely divided. First primary of the wings of moderate length, the second slightly shorter than the third and fourth, which are the longest.

GREAT GREY SHRIKE.

Lanius meridionalis.

Lanius meridionalis,

“ “

“ “

“ “

Pie grièche meridionale,

Südlicher Würger,

TEMMINCK; Man. i., 143.

BONAPARTE. SCHLEGEL.

SCHINZ. DEGLAND.

KEYSERLING ET BLASIUS. GOULD.

OF THE FRENCH.

OF THE GERMANS.

Specific Characters.—First quill feather shorter than the fifth; tail long and much graduated, with the lateral quill feathers half black and half white; a white mark above the eye, and a roseate tint on the under parts in the adult. Length ten inches.

THE Shrikes, which form the first genus of Temminck's third order, *Insectivores*, are a well-marked group, feeding almost, if not entirely, upon insects. They were originally classed by Linnæus in his first edition of the “*Systema Naturæ*,” published in 1735, among



GREAT GREY SKUA.

the Falcons, but he subsequently formed them into the distinct genus *Lanius*, still keeping them among the *Accipitres*, or Birds of Prey. They were, however, separated from this last class by Illiger and Cuvier. Temminck, in the first edition of his "Manual," placed them directly after his order *Rapaces*; but as he justly observes their manners and habits are so similar to those of the great group comprised in his *Insectivores*, that in his second edition in 1820 he placed them at the head of that order. Schlegel places the Swallows between the *Raptores* and the *Lanidæ*. Swainson classes the latter directly after the *Raptores*, while Bonaparte separates them from that order by no less than twelve families, including the *Hirundinidæ*, *Sylviidæ*, *Paridæ*, *Merulidæ*, etc.

The limits of this book will not allow me to enter at length into the various reasons assigned for these different generic positions. Temminck, however, did not form his arrangement upon one or two peculiar characteristics; he took a masterly view of the various groups of birds, and he assigned to them the position they hold in his classification, according to their natural affinities. Thus the *Sturnidæ* are insect feeders and have a musical note, but in their habits they assimilate with the Crows, and he therefore excluded them from the *Insectivores*, and placed them with the Rollers, the Chatterers, the Orioles, and the Pastors, in the *Omnivores*. But the habits of the Shrikes are altogether those of our singing passerine birds, with whom they are seen flitting from branch to branch in early spring, and they are therefore introduced into that group, and are placed at the head of the order *Insectivoræ*.

The Great Grey Shrike, (*Lanius meridionalis*,) must not be confounded with the bird of that name in the British lists, *L. excubitor* of Pennant, to which it is a pity that Yarrell did not restrict the name of Grey or Cinereous or Ash-coloured Shrike, given to it by various authors.

Temminck, however, in the second edition of his "Manual," states his opinion that the three European Shrikes known as *L. excubitor*, *L. meridionalis*, and *L. minor*, are only races or permanent varieties produced by climatic agency. I will quote his exact words, as the subject is one of great interest. In the third edition he does not say anything contrary to this opinion, but he gives an additional distinction between the two first, namely, the white band above the eyebrows, mentioned in the specific characters above.

"This Shrike and those known under the names *excubitor* and *minor*, seem to form three races or constant varieties, produced by the climate. This one (*meridionalis*) belongs to the countries of the

south, and never visits the centre or the north of Europe. Its habits are nearly the same as those of the Grey Shrike, (*excubitor*,) from which, however, it constantly differs by the much darker ash-colour of the upper parts of its body, and by the wine lees colour distributed in different shades upon all the under parts of the body. This race, which might also be called a species, seems always to have the same marks by which it is easily distinguished from *L. excubitor*, without offering by its plumage any indication of a union of the species. I do not think the races do mix, though this may take place in districts where they are both found, or where one is more numerous than the other."

The Great Grey Shrike is an inhabitant of Italy, Dalmatia, the South of France, and the Spanish coast of the Mediterranean, and is found in Greece. It has been killed by M. Savi in Tuscany, and by Prince C. Bonaparte near Rome. It occurs accidentally in the North of Africa.

Count Von der Mühle says:—" *L. meridionalis* is found, though not commonly, among the bushes in growing meadows. It breeds in Greece. It is very like *excubitor*, when young, but it has the four centre tail feathers a beautiful black. It is rarely seen here after the end of August."

According to Degland it nests in trees. It lays five or six eggs, of a dirty white or reddish white, with small spots, numerous and close together, of a dull red, brown, and grey. Length,—long diameter one inch, small diameter nine lines.

In the "Fauna Boreali Americana" there is an excellent picture of the North American Shrike, (*Lanius excubitoroides*,) which Swainson occupies three or four pages in endeavouring to prove is a new species, and different both from the *L. Carolinensis* of Wilson, and the *L. Ludovicianus* of Linnæus. He also says that Vieillot's *L. ardosiaceus* is an imaginary species, made up of *L. borealis*, the Great American Grey Shrike, and Wilson's *Carolinensis*. If Swainson's description is, however, true, whatever may be the specific mark of *L. meridionalis*, there can be no doubt about Wilson's *Carolinensis*, and the *L. meridionalis* of Temminck being the same bird. Swainson insists upon the importance of the four middle tail feathers of *L. Carolinensis* being a strong distinctive character between that bird and his *L. excubitoroides*. If it is the only one, and he only adduces the additional characteristic of "a darker slate," then it is quite certain that my supposition is right. The description of M. Temminck of his *L. meridionalis* is (with the exception of the four middle tail feathers being quite black instead of two) *precisely corresponding to*

the figure given by Swainson in the "*Fauna*," as above quoted. The white mark above the eye is not mentioned in the second edition of the "*Manual*," but it is in the third. Temminck gives the length of *L. meridionalis* nine inches, Degland ten. Swainson is most accurate in his dimensions, and gives the length of his bird nine inches and a half.

Wilson also says of *L. Carolinensis* that it inhabits the warmer parts only of the United States, as the rice plantations of Georgia and Carolina, and in the observations above it will be seen that Temminck says *L. meridionalis* only inhabits the countries of the South of Europe.

Adult male. The head, nape, mantle, and back of a very dark ash-colour; a large black band below the eyes, covering the orifice of the ears; throat of a vinous white. All the lower parts of a rather vinous ash-colour, of which the tints are shaded upon the flanks and thighs into a more pure and darker ash-colour. Origin of primaries and tip of secondaries of a pure white; four middle quills of the tail quite black, the others as in *excubitor*.

Adult female. Upper part of the body of a dark ash-colour, but always less pure than that of the male; the under parts more shaded with ash-colour, and variegated with dark crescentic marks, which terminate all the feathers. The dark band under the eyes not so decidedly black.

The figures of the bird and egg are from specimens in my own collection, which I received from Mr. Savile Reid. I have other eggs taken by "E. Fairmaine," and sent to me by the late Herr Seidensacher. Mr. Reid's specimens were taken at Gibraltar.

INSECTIVORÆ.

Family LANIDÆ.

Genus LANIUS. (*Linnaeus*.)

MASKED SHRIKE.

Lanius personatus.*Lanius personatus*,“ *nubicus*,

TEMMINCK. SCHLEGEL, 1844.

LICHSTENSTEIN; Cat: Mus: Berlin,
1823.“ *leucometopon*,

COUNT MUHLE, 1844.

Leucometopon Nubicum,BONAPARTE. CAPT. LOCHE; Cat:
des Mam., et des Ois: Observé
en Algerie, 1858. Supplementary
list, p. 154.*Pie-Grièche masquée*,

OF THE FRENCH.

Specific Characters.—Wings with a rather lengthened bastard quill feather, marked with a white spot. First quill feather longer than the fifth; tail long and sloped, with the most lateral quill feather white, shaft black; the following one also white; inner feather with the shaft and edges black.

Length nineteen centimetres (seven inches and a half.)—DEGLAND.
Length six inches and one-sixth, (Paris.)—MUHLE.

THIS bird appears to have been first described by Lichstenstein, in his Catalogue of Duplicate Birds in the Museum of Berlin, and published in 1823, under the name of *Lanius nubicus*. It was subsequently discovered in Greece, and described as a new species by Count Von der Mühle, in 1844, under the name of *Lanius leucometopon*.

It was first figured by Temminck as *L. personatus*, which name was adopted by Schlegel, in his “Revue,” in 1844, and which I retain in



MASKED FLYCATCHER.

deference to the former distinguished naturalist. The genius of the late Prince of Canino, so fertile in adding to our list of names, called it *Leucometopon nubicum*, erecting a new genus upon the specific name of Count Mühle. Ornithologists must not therefore be confounded in finding the *Lanius personatus* of 1844, and the *Leucometopon nubicum* of Loche's list of African birds in 1858, the same.

And yet it is, and was, and ever will be, a *Butcher Bird*, having all the characters and habits of the well-marked genus *Lanius*.

The Masked Shrike is an inhabitant of Greece, Syria, Nubia, Palestine, Arabia, Abyssinia, and Egypt. We are indebted for all we know about its habits to Lindermayer and Mühle, the Grecian ornithologists.

According to the former it makes its nest in bushes, in uncultivated ground, or on olive trees; it constructs a circular nest, composed of young leaves outside, and of blades of grass and petals of flowers inside. It lays seven or eight eggs, of a pale greenish grey, washed with a yellowish tint and irregular spots of green black, mixed with others of a green brown at the largest end.

It arrives in Greece towards the end of April or beginning of May, and leaves with its young towards the end of August. It inhabits the extensive valleys of Greece, and sings very prettily.

I copy the following from Von Heuglin's "Vogel Nord Ost Africas:"—"The Nubian Shrike I consider (notwithstanding Brehm's opinion) as a bird of passage in Egypt and the north of Nubia; further south it may be a resident, but it is not to be found north of the tropical circle in winter, and appears there generally in the beginning of March. It also comes into warmer regions in Abyssinia as a passing visitor in August and September. On the Nile it dwells principally in the small acacia groves near pasture land. It is tolerably quiet and peaceable, feeding especially on coleoptera, which it procures as often out of the ground as from the catkins of the acacia hedges and cotton fields. The song I never particularly noticed. Krüper describes it as rather like that of "*Hippolais olivetorum*."

Count Mühle thus describes the "Masked Shrike:"—"A beautiful Butcher Bird, of which I have collected both young and old in Greece. Length six inches and one sixth. It has a broad white stripe, which extends across the forehead and over each eye; the scapulars clear white; the whole upper part of the body, head, back, and tail blue black; the wings brown black, with a clear white speck upon the tenth primary; the secondaries and wing coverts whitish at the edges; breast, red yellow; feathers on the abdomen bright rust-coloured. Tail feathers white, with black shafts; first feather an inch shorter; second the same, having its inner side with a narrow border of black; the third

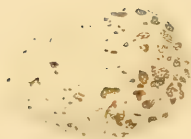
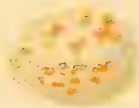
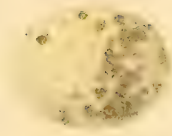
black, with a white wedge-shaped spot on the inner side, and a larger one on the outside.

The young have the whole upper part of the body greyish, with thick black wave-like lines; all the feathers yellowish red at the edges; the scapularies whitish, with black waves; the spots on the wings like those on the old birds, but smaller, with white edges to the primaries, broader on the hinder ones. Tail brown black, otherwise the same as in old birds; throat white; whole under part of body whitish, with black waves; under wing covers the same. Beak and feet black.

Habitat on the thorn bushes along the banks of the Phalerus, near Athens."

The egg of this bird is figured from one in my collection, which was taken near Smyrna by Dr. Krüper.

Figured by Temminck, pl. 256, f. 2.



1. MASKED SHRIKE.

2. WHITE-COLLARED FLYCATCHER. 3. RED-BREASTED FLYCATCHER.

4. HOODED SHRIKE.



INSECTIVORÆ.
 Family LANIDÆ.
 Genus LANIUS.

HOODED SHRIKE.

Lanius cucullatus.

<i>Lanius cucullatus,</i>	TEMMINCK, 1840.
“ <i>Tchagra,</i>	LE VAILLANT; Ois. d'Afr., 2, pl. 70.
“ “	SCHLEGEL. DEGLAND.
“ “	BREE, first edition.
<i>Telephonus erythropterus,</i>	SWAINSON.
<i>Pie-Grieche à Capuchin,</i>	OF THE FRENCH.
<i>Tschagra-Würger,</i>	OF THE GERMANS.

Specific Characters.—Above testaceous brown, beneath ash grey; wing coverts and quills (externally) rufous; crown and stripe through the eye black; sides of the head with a broad rufous stripe. First primary short; fourth, fifth, and sixth equal, and longest in wing.

Total length eight inches and a half; from the gape one inch; wings three inches and a half; tail from base four inches; tarsus one inch and one-tenth.

THIS bird has been introduced into the European fauna in consequence of its occurrence in Spain, especially. More recently it has been killed in the west of France, according to Degland. Temminck, in the latest additions to his Manual, published in 1840, remarks that he has received it from Andalusia, as well as the south of Spain. But it is rather singular that in a list of the Birds of Andalusia, published by Dr. (Don Antonio) Machado, in 1854, no mention is made of this bird. The omission, however, loses much of its significance by not being noticed. M. Temminck remarks further that his

specimens from Andalusia do not differ from those of Senegal. But Schlegel, writing in 1844, observes that the specimens killed in Spain and at the Cape of Good Hope are the same, while they differ both in size and colour from those brought from Senegal. This is also confirmed by Degland. But the Spanish specimens alluded to in both these instances were those procured from the south of Spain.

Since the publication of the first edition, Temminck's statement that he had received specimens from Andalusia and south of Spain has been simply denied, because modern naturalists do not seem to have met with it in that country. Mr. Dresser also thinks the statements of Degland and Gerbe, that it had occurred in the south of France, "wide of the truth." There does not anywhere appear anything like proof to support these doubts.

Mr. Dresser, however, introduces the bird, and so do I. Mr. Dresser's wider scope allows him to take in part of North Africa, but as I wish to keep within European limits, I will quote that gentleman's letter from Major Irby, as well as the testimony of Lord Lilford, as my reasons for not excluding this bird.

"Lord Lilford believes that it sometimes visits the extreme south-west of Spain; and Major Irby has given us the following note on the subject:—'The late M. Favier (whose M.SS. are now in my possession) says that the Tschagra does cross over to Spain. All that I can say is, that during my five years' residence I never saw one, though it is a conspicuous bird, and one which I know well from having seen and shot in Morocco. However, on showing a skin to some bird-catchers at Tarifa, they professed to recognise it, and even called it "*Alcandon carnicero*," a name I never heard applied to any other Shrike [my italics.] I have since heard of one having been procured near Cadiz....I have little doubt that it does occasionally occur near Tarifa, as it is not rare on the opposite coast of Tangier, only nine miles distant.'"—(Dresser, "Birds of Europe.")

I copy the following from Canon Tristram's paper on the Birds of North Africa, "Ibis," vol. ii., p. 150:—"I had just missed a snap shot at a rabbit, when a strange scream from a matted lentisk bush arrested me. 'Tschagra, tschagra, chagra, chrug,' most inharmoniously repeated. I dismounted, approached, but could not see the hidden vocalist, though I struck the bush several times. At length a stone dislodged him, and I brought him down ere he had reached the next clump. It was a fine male specimen of *Telephonus cucullatus*, or Tschagra, aptly so named, and was the first I had ever seen. He is a beautiful bird in flight; his rich chesnut wings prettily contrasting with his long expanded fan-like tail of jet black, with a broad white

bar at its extremity. In its habits he differs much from other Shrikes, never showing himself as they do on the extremity of a branch, or in an exposed tree, but always concealed in the thickest recesses. 'Heard, not seen,' is his motto. I looked in vain for the nest, which was probably in the neighbourhood, as I saw another bird gliding through an adjoining thicket. A few days afterwards I obtained a nest, the only one I ever took, placed in the centre of an arbutus bush, large, and coarsely constructed of twigs, with a thick lining of wool and hair, and containing four eggs. These were slightly larger than those of *L. excubitor*, of a white ground very thickly covered over the whole surface with brown spots, and a few russet red blotches, somewhat intermediate between the Shrike and the Lark. But for the closeness of the spots and their reddish hue, they might easily pass for the eggs of *Certhilauda desertorum* in my collection. The Hooded Shrike is not a desert bird, but only a summer visitant to the Tell, retiring however very late, as I have met with birds of the year at the end of October. It seems strictly confined to the forest districts."

Von Heuglin, in his "Vogel Nord Ost Africas," remarks that this bird "varies in proportions and colouring. Rüppell also draws attention to two races always. In specimens received from Kordofan the neck and middle of the back are isabelle colour; the whole of the body underneath almost milk white; the feet a clear brown." This is clearly not the *Lanius cucullatus* of Temminck, which I am now describing, neither does it answer to the bird described by Vieillot. "The race which inhabits the Abyssinian coast land has the neck and its sides and the middle of the back green brown: breast and belly blue grey; the feet a dark brown." This is the bird which I consider, from its inhabiting Morocco, is the bird found in Spain, but this is clearly the same bird as that described by Vieillot, whose account of the bird I append to this, as the reviewer of my first edition in the "Ibis" implies that I have there described Vieillot's bird, but not that of Temminck. I shall in this edition figure and describe, as the Hooded Shrike found in Europe, a specimen from Morocco.

Von Heuglin goes on: "The Tschagra is a very common bird in Soudan, in Takah, and the Bisharia region, and extends northwards to 19° N. lat. In Abyssinia it does not perhaps extend higher than the Worna Degu territory (6,000 to 7,000); in the region of the Abiad we met with it westwards even to the boundary of Dar-Festit: on the Nile proper northwards to the province of Besber. It seems to be resident in all other places. In many respects these birds

differ from their allies. They live in pairs and families in underwood, often far removed from any water, run frequently, and often quickly, with upraised and outspread tails on the bare earth, and among bushes. They are mostly inoffensive and confiding. Their flight is low and hovering, and the very clear, full, and resounding call-note may be almost represented by *dui-dui*, *chit-chui*, and at intervals may be heard the wooden rattle of the female. After heavy storms of rain this bird, whose feathers are but slightly oily and eagerly receive the water, rises high in the air, and here produces, by the quick tremulous movement of its wings, a peculiar noise, like the whirr of the Woodpecker. Both sexes have the same plumage. The eggs are oval, fine-shelled, white, with rusty brown and greenish and lively reddish brown spots and streaks, more particularly at the larger end. Length ten and one third by seven and a half lines."

The following account of this bird is given by Le Vaillant, in his "Histoire des Oiseaux d'Afrique:"—

The Tchagra is about the size of our European Grey Shrike; its tail, very slightly sloped, is simply rounded at the end; the upper part of the head is of a brownish black, slightly shaded with olive; the back of the neck and scapulars and upper part of the body are of a tan-brown colour: throat whitish. A white band springs from the corner of the eye, and is prolonged from thence with a black line, which is parallel. The neck above and the body below are ash-coloured; the great covers of the wings and the upper edges of the quill feathers are of a ferruginous red, the rest brown, with a greenish shade above; below entirely ash-coloured. The two middle feathers of the tail are of a brownish grey, imperceptibly shaded with a deeper colour; the others are blackish, all tipped with white. Beak horny black, as well as the feet; iris brown.

This bird frequents the most covered and thickest places; it would be very difficult to discover were it not continually betrayed by its song. The male has a note which is heard far off, and which is very well expressed by 'tcha-tcha, tcha-gra,' from which Le Vaillant derived its name.

The female is rather smaller than the male, and has not the upper part of its head black; in every other respect they are exactly alike, except a rather darker shade, which may be discovered on the mantle of the male and in the red of its quill feathers.

The nest of these Shrikes is found in the bushes; they lay five eggs, spotted with brown.

When young the Tchagra has all the upper part of the body of a much lighter ashy brown than is represented in the figure given

by Le Vaillant, of the male and female, and the white is of a reddish tint. It is only at a certain age that the upper part of the head of the male becomes black.

This species was found by Le Vaillant in the environs of the Gamtoos River, and from thence as far as Caffraria, but he did not meet with it in his travels among the Macaquois.

An adult male in my collection has the top of the head and nape glossy black; a band of the same, separated from the head by a white and rufous band, runs through the eye. Scapularies, upper wing coverts, back, rump, and upper two tail feathers olive green, the two latter being, with upwards of twenty indistinct bands, of a darker colour. Primaries with the outer web rich chesnut brown, forming a complete colouring to the sides of the wings when closed; inner webs sepia coloured; secondaries blackish brown, indistinctly banded and bordered more or less with chesnut brown. Throat and breast white; the rest of the under parts ash grey. Some feathers below the edge of the carpal joint white. Wing lining ashy, with a light isabel bordering to the inner web above. Tail, with the exception of the two upper feathers, which are described above, black, broadly tipped with white; below black, with four white patches, showing the gradation in size of the feathers. Beak plumbeous brown. Tarsus plumbeous, with five bands of white, which are more or less carried on to the toes.

The egg figured, taken in Morocco with the skin, measures one inch by six tenths of an inch. It is glossy white, spotted and slightly blotched, principally at the larger end, with plumbeous and two shades of reddish green. It is an unmistakable Shrike's egg.

The figure of the bird and egg of this species are from specimens in my collection, taken in Morocco, and I am indebted for them to Mr. Savile Reid, of Gibraltar.

Figured by Buffon under the name of *Pie-Grieche rousse à tête noire du Senegal*, pl. enl. 479, f. 1, and by Mr. Dresser, B. of E.

The Lesser Grey Shrike having occurred twice in England, has been figured and described by both Mr. Gould and Professor Newton in their respective works upon the Birds of Great Britain. It is therefore omitted, though with regret, from this edition.



WHITE-COLLARED FLYCATCHER.

THE Flycatchers are merely birds of passage in Europe, and we only recognise four species in its fauna, of which three are in the British lists. The tropics are rich in species of this family.

The White-collared Flycatcher is found especially in the provinces of the centre of Europe, and is dispersed rather plentifully in many parts of France, less regularly in the north. Degland says that he has found it at Lisle in May, and that it breeds in considerable numbers in Lorraine. Temminck says that it is never found in Holland, and rarely in the middle of Italy. Count Von der Mühle observed it in Greece, in the spring passage in April, but then only for a few days, and in considerable numbers, and in the breeding plumage, from which he thinks it probable that it breeds in Roumelia. It is included in Captain Loche's "Birds of Algeria."

Latham thought that the White-collared Flycatcher was a variety of the Pied, and observes—"These varieties the less surprise us when we are told that the bird varies in plumage in different seasons of the year, the male only possessing the full black during the summer; after that growing so like the female as not to be known from her. Hence such variety of description and sentiment concerning this bird." The specific distinction, however, between the two birds, was clearly pointed out by Temminck in the first edition of his "Manual." The males in breeding plumage are easy to distinguish, but only after the change in the colour of the plumage which follows the spring moult, and which Temminck at one time considered and described as a second moult.

In *albicollis* the white collar surrounds all the upper part of the neck, while in *atricapilla* the whole of the upper part of the neck at this time is black. During the moult the collar of *albicollis* is marked out by a grey ashy shade. The males of *atricapilla* in the winter plumage have no white spot on the quill feathers. In *albicollis* the two external quill feathers of the tail have a white edge, more or less wide according to age; in *atricapilla* there are *three* lateral quill feathers so marked. According also to Roux, the first quill feather of the wing is not longer and often shorter than the fourth in *atricapilla*, whilst it is always *longer* in *albicollis*. In all other external marks the males in winter plumage, the females of both species, and the young birds, may very easily be mistaken for each other.

But the habits, the call note, and the song of the males, are very different and distinctive, as well as the colour of the eggs. The call of *albicollis* is a sharp disagreeable whistle, while that of *atricapilla* is an agreeable sonorous note.

The White-collared Flycatcher builds its nest in the holes of trees,

of moss and hair. It lays five or six eggs of a pale greenish blue, and generally *very slightly deeper in colour or streaked at the larger end*. Large diameter nine lines, small diameter six lines.—Degland.

It frequents wild and vast forests, where it may be found perched upon the summit of the trees, only coming down when its prey, the insects, are driven lower by the rain. It is only seen in the smaller woods in autumn. The plumage differs much in the sexes, and at different seasons.

Male in breeding plumage. The top and sides of the head, back, small wing coverts, upper tail coverts, and tail of a deep black; the lower part of the back variegated with white. The forehead, a collar round the lower part of the neck, a large longitudinal spot, and a small spot below it upon each wing of a pure white; the outermost tail feathers on each side edged with white. Beak, feet, and iris black.

Adult male in autumn and winter. Greyish brown above, white below; it only then differs from the female of the same age by a kind of grey and often interrupted collar round the neck, and by the feathers being darker.

Female. In breeding plumage very little different from the Pied Flycatcher. It is of an ashy grey above, and pure white below; the forehead whitish; a white spot upon the wing, and a kind of collar of paler feathers at the base of the neck.

Young birds of the year are like the females in autumn, but they have the inferior parts of the body of a duller white, the chests and sides spotted with ash-colour, and they have not, like them, a whitish forehead. At the approach of spring the plumage of the young male blackens wherever it is ash-coloured in the female. One or both lateral tail quills are black with white edges, but this disappears entirely in the males upwards of two years old. In winter there is no difference between males and females.

The figure of this bird and its egg are from specimens in my own collection, sent to me by Dr. Meves, of Stockholm.

Bird figured by Roux, "Ornith. Prov.," pl. 151, male in summer plumage; Gould, "B. of E.," pl. 63, f. 2; Bonteil, "Ornith. du Dauph.," pl. 19, f. 2.

Muscicapa parva, the Red-breasted Flycatcher, is now in the British fauna, (see Newton's edition of Yarrell.) I give an illustration of the egg from my own collection. It was taken in Germany.



MIGRATORIA FRUGES.

INSECTIVORÆ.

Family *TURDIDÆ*. (*Bonaparte.*)Genus *TURDUS*. (*Linnæus.*)

Generic Characters.—Beak medium size, compressed, and more or less bent at the tip; the upper mandible hollowed out towards the end; isolated hairs at the gape. Nostrils basal, lateral, ovoid, and partly covered by a naked membrane. Feet with the tarsi longer than the middle toe; the exterior toe united at its base to the middle one. The first primary almost wanting, or short; in some species the third is the longest, in others the fourth.

MIGRATORY THRUSH.

*Turdus migratorius.**Turdus migratorius,*

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“ *canadensis,**The Robin,**Migratory Thrush, American Fieldfare,**Merle Erratique and Litorne du Canada,**Wanderdrossel,**Red-breasted Thrush,*

LINNÆUS. GMELIN. LATHAM.

VIEILLLOT. TEMMINCK.

BONAPARTE. SCHLEGEL.

BRISSON.

WILSON.

OF AUTHORS.

OF THE FRENCH.

OF THE GERMANS.

BREE, first edition.

Specific Characters.—Wings with the bastard feathers short; first primary longer than the third, the second longest of all. Plumage olive brown, underneath rufous; head of the adult blackish, more or less spotted with brown below, and of an ashy brown tint above in the young.

Measurement.—Length nine inches and four lines; beak twelve lines; tail three inches and six lines; feet fifteen lines; toe with claw twelve lines and a half; extent of wings fourteen inches and eight lines.

THIS is a North American species, where it ranges as far as Hudson's Bay. It is only an accidental visitor to Europe. According

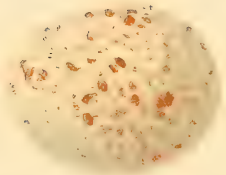
to Temminck it has been killed frequently in Germany; on the testimony of Brehm it is recorded as having been killed near Vienna; and M. de Selys-Longchamps thinks that the specimen indicated by Schinz of *Turdus rufus*, as having been killed in England is referable to this species. Whether this latter remark be true or not I cannot say, but as we know nothing of its habits in Europe, I have much pleasure in introducing the following graphic and interesting account of it from "Fauna Boreali Americana" by Swainson.

"The Red-breasted Thrush is very common in America, where it is called the Robin. It affects the neighbourhood of towns, and is observed to feed much on the fruit of *Nyssa sylvatica*, and on poke-berries, *Phytolacca decandria*.

It begins to sing in March, and pairs early in April. Its nests were observed as high as the sixty-seventh parallel of latitude, and as low as the fifty-fourth. The young are hatched about the end of May in the latter districts, but not until the 11th. of June further north. The snow even then partially covers the ground, but there are in the high latitudes abundance of berries of *Vaccinium uliginosum* and *V. vitis-idaea*, *Arbutus alpina*, *Empetrum nigrum*, and some other plants, which, having been frozen up during the winter, are exposed the first melting of the snow, full of juice and in high flavour; shortly afterwards, when the young require them, the parents get plenty of fruit.

It builds on the branch of a spruce fir-tree, generally about five or six feet from the ground, taking no particular pains to conceal it, and frequently selecting a tree in the immediate vicinity of a house. Its nest is formed, like the European Thrush, of grass and moss interwoven, and lined with dung. The eggs, five in number, are about fourteen lines long, and have a bluish green colour like those of the Common Thrush.

He is one of the loudest and most assiduous songsters, his notes rather like those of our Thrush, but not so loud. Within the arctic circle the woods are silent in the bright light of noonday, but towards midnight, when the sun travels near the horizon, and the shades of the forest are lengthened, the concert commences, and continues till six or seven in the morning. Even in these remote regions the mistake of those naturalists who have asserted that the feathered tribes of America are void of harmony, might be fully disproved. Indeed the transition is so sudden from the perfect repose—the death-like stillness of an arctic winter—to the animated bustle of summer; the trees spread their foliage with such magical rapidity, and every succeeding morning opens with such agreeable accessions of feathered songsters to swell



1. MIGRATORY THRUSH.

2. DUSKY THRUSH.

3. BLUE THRUSH.

the chorus, their plumage as gay and unimpaired as when they enlivened the deep green forests of tropical climates, that the return of a northern spring excites in the mind a deep feeling of the beauties of the season, a sense of the bounty and Providence of the Supreme Being, which is cheaply purchased by the tedium of nine months winter.

The most verdant lawns and cultivated glades of Europe—the most beautiful productions of art, fail in producing that exhilaration and joyous buoyancy of mind, which we have experienced in treading the wilds of Arctic America, when that snowy covering has been just replaced by an infant but vigorous vegetation. It is impossible for the traveller to refrain at such moments from joining his aspiration to the song, which every creature around is pouring forth to the Great Creator.”

The Red-breasted Thrush migrates in greater or less flocks at the end of summer. It is interesting to reflect upon the marvellous power of that instinct which impels a bird like this into the cold regions of the far north, where the food necessary for the support of its young is still under the frozen snow.

The male in summer has the superior parts and sides of the head covered with black feathers, having the margin fuscous inclining to olive; on each side of the head, between the beak and the eye, is a small white spot. The upper part of the neck, body, and upper tail coverts of a blackish brown; front of the neck white, longitudinally marked with blackish streaks; chest and abdomen of a very light russet; lower belly of a pure white; under tail coverts brown, spotted with white; free edge of the eyelids white. Wings like the mantle, with the lesser coverts bordered with ash-colour; primaries and tail quills brown, also edged with ash-colour, the outer end of these last terminating on the inside with a white spot, and the following one by a border of the same colour.

Males in autumn are of a more green tint above, and all the red feathers of the inferior parts end in whitish.

Female in summer plumage is of a more ashy tint above, and a less bright red below, a part of the abdominal feathers ending in white, those of the rump, wings, and tail visibly worn out.

Young before the first moult. Upper parts blackish brown; of a dull black on the head, with the spots and streaks reddish in the centre of the feathers. The back, throat, and middle of the neck white, slightly washed with russet; chest and abdomen of a bright red, crossed with black spots at the extremity of the feathers; lower belly white. Wing coverts of a lighter brown than the mantle; primaries

and tail quills blackish, the latter edged with white.

The egg is from a specimen in my own collection.

The figure of this bird is from a skin kindly lent to me by Mr. Gould in summer plumage.

Figured by Wilson, pl. 2, fig. 2; Gould, pl. 74; Buffon, pl. enl. 556.



NAUMANN'S THRUSH.

INSECTIVORÆ.
Family *TURDIDÆ*.
Genus *TURDUS*.

NAUMANN'S THRUSH.

Turdus Naumannii.

<i>Turdus Naumannii</i> ,	TEMMINCK; Man., 1820. BONAPARTE.
" "	SCHINZ. KEYSERLING AND BLASIUS.
" "	SCHLEGEL. NAUMANN, pl. 87, 2.
" <i>dubius</i> ,	BONAPARTE. SCLATER; Ibis, 1862.
" "	GRAY; H. L., No. 3674.
<i>Merle Naumann</i> ,	OF THE FRENCH.
<i>Naumann's Drossel</i> ,	OF THE GERMANS.

Specific Characters.—Plumage ash-coloured red above; in the adult marked below with large red spots fringed with white, and in the young with triangular spots of blackish brown. Length ten inches.

THIS is said to be one of the Asiatic Thrushes discovered and designated by Pallas, *Turdus fuscatus*. Temminck described it in his "Manual" of 1820 as *T. Naumannii*, after the distinguished ornithologist of that name. Mr. Gould, in his "Birds of Europe," adopts Temminck's name, and gives the figure of a bird from the Museum of Munich. In his "Birds of Asia" he restores the name of Pallas—*T. fuscatus*. Gould's two figures differ considerably, and I am not aware that Temminck ever admitted that the bird he described as *Naumannii* was identical with the *fuscatus* of Pallas.

T. Naumannii is an inhabitant of Siberia, Japan, and China; it occurs accidentally in Silesia and Austria, more commonly in Hungary, and in the Amoor Land. It is also found occasionally in Dalmatia and the centre of Italy.

In the first edition I introduced the figure and notice of a bird under the above name. The figure is taken from Gould's plate of *Turdus fuscatus*, which was at that time considered by Gould and other naturalists as identical with the true *T. Naumannii*, figured in Plate LXVIII of Naumann's "Naturgeschichte der Vögel Deutschlands," and fully described at p. 288 of that work.

The identity of the two species was not however admitted by many naturalists, and in the continuation of Naumann's work by Professor Blasius, they are described and figured as distinct. Dr. Sclater has entertained the question in the "Ibis," vol. iv., p. 319, admitting the correctness of this division, and giving a figure of what he considers the true *T. Naumannii*, from a skin belonging to Mr. Gould, which was that of a bird shot at Shanghai, in March, 1850.

Mr. Gould was kind enough to lend me this skin, which is very faithfully copied in the "Ibis."

That *Turdus Naumannii* of Temminck is specifically distinct from *T. fuscatus*, Pallas, is settled in the affirmative. But what are we to say of some of those birds which are given in ornithological works as the true *T. Naumannii*?

M. Jaubert, in his "Richesses Ornithologiques," figures and describes two birds as *T. Naumannii*. One of these is stated to be an adult male, the other a young one. The former was shot by M. Lauzin, in the Commune d'Allauch, in the month of December; the young one by M. Bonifay, in September, 1845. Neither of these birds has the slightest resemblance to the China specimen figured by Dr. Sclater in the "Ibis." M. Jaubert writes with a full knowledge that "Cette Grive voisine du *Turdus fuscatus* de Pallas." Referring however to Naumann's original figures, it must be confessed that they differ as much from M. Jaubert's as the latter do from Dr. Sclater's!

Are the figures given by Naumann and that of Dr. Sclater identical? This question admits, I think, of easy solution. Both Naumann's figures, Plate LXVIII, are *young birds*, but in the history he gives a most minute account of the adult male, and this *description* agrees most accurately with the Shanghai specimen, from which Dr. Sclater's figure was taken.

Dr. Schrenck, in his "Amur Reise," has also described a young male *T. Naumannii*, and pointed out wherein it differs from *T. fuscatus*, which is very common in that country. Assuming that his account of *T. Naumannii* represents the real bird, it would seem to settle the question of its specific difference, and that Jaubert's figures must be referred to *T. fuscatus*, which bird will have to be admitted separately into the European fauna.

By the great kindness of Mr. Swinhoe I have had the opportunity of examining a series of this bird obtained in China, and from these I give the following descriptions:—

Adult male, killed at Shangai in February, 1873. Upper parts olive, mottled here and there, especially on the rump and sides, with rufous. Primaries olive brown, with the outer web narrow and bordered with white. The bastard wing feathers almost obsolete. The second true remige the longest; the second and third notched about an inch from the tip, the fourth more slightly. The edges of the lesser wing coverts creamy white, forming a distinct band across the upper part of the wing. Rump inclining to be rufous. Upper tail feathers olive, the rest rufous on their inner webs. Sides of head olive brown, with a creamy streak over the eye. Throat reddish white, with two rows of more or less confluent black spots running down as far as the carpus of the wing when closed, and enclosing three or four rows of spots, smaller and not confluent. Breast and upper abdomen rufous, with creamy borders to the feathers. Abdomen and under tail coverts dirty white, more or less mottled with rufous. Axillary feathers rufous, the rest of under wing olive grey. Lower mandible has the basal half yellow, rest dark brown. Length eight inches and a half; wing, from carpus to tip, five inches; tail three inches and a half; tarsus one inch and two fifths; beak one inch.

An adult female, marked "Shangai, March, 1869." Differs from the male described above in having the rufous markings less pronounced on the under parts, and the gular dark spots less, and not confluent. The wing band is also more obscure. Length seven inches and four fifths; carpus to tip five inches and one fifth.

A young male bird, marked "Mingpo, Jan. 15th., 1873." Has no rufous on the olive green back, and very little on the chest and abdomen. Throat and neck rich cream-colour, with rows of dark spots longitudinally on each side and on the throat. Superciliary streak slight. Lower mandible like the upper, black. Length nine inches; carpus to tip five inches; tail three inches and a half; tarsus one inch and one fifth.

The upper of my two figures represents the male first described, the lower one the female.

INSECTIVORÆ.

Family *TURDIDÆ*. (*Bonaparte.*)Genus *TURDUS*. (*Linnæus.*)

DUSKY THRUSH.

Turdus fuscatus.*Turdus fuscatus*,

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PALLAS; Zoog., i., p. 451.

RADDE; Reisen im Suden von Ost
Siberien, vol. ii., No. 121, pl. 7.

GOULD; Birds of Europe, pl. 79.

Specific Characters.—Crown of head, cheeks, and sides of chest, deep maroon brown. Upper parts, including wing coverts, rusty, coloured with black markings, extending from the occiput to the scapularies; a broad cream-coloured streak above the eye.

DR. VON SCHRENCK, in his “Amur Reise,” (i., p. 353,) expresses his decided opinion that *Turdus fuscatus*, Pallas, is quite distinct from *T. Naumanni*, Temminck. Mr. Gould, as stated above, figured *T. fuscatus* as *T. Naumanni* in his “Birds of Europe,” (vol. ii., pl. 79.) In his “Birds of Asia,” Mr. Gould figures *T. fuscatus* for *T. Naumanni*, considering the species identical. Commenting upon this, Dr. Selater (“Ibis,” vol. iii., p. 278, note,) remarks:—“I am inclined to think that Mr. Gould has done wrong in uniting these two species. *Turdus fuscatus* is a well-known Japanese bird, and as Dr. Schrenck informs us, the commonest of all the genus in the Amoor Land. Of *T. Naumanni*, on the other hand, but one example was obtained in Amoor Land, and it appears to be a more western bird, which occasionally straggles into Europe.”

Further, in the “Ibis,” iv., p. 319, note, the same author observes:—“We have already recorded our belief in the distinctness of the true *T. Naumanni* of Temminck’s ‘Manual’ from *Turdus fuscatus*, Pallas,



Q. 127. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

(*Turdus Naumanni* of the 'Fauna Japonica.') Captain Blakiston's specimens of the latter killed in Japan, and of the former obtained at Shanghai, with others in Mr. Gould's collection, aided by the excellent figures and descriptions given of these two oft-confounded species in the new continuation of Naumann's 'Vogel Deutschlands,' ('Ibis,' 1862, p. 40,) have converted our doubts as to the inaccuracy of referring these two birds to one species into a certainty.

"The adults of these two Thrushes are very different, and recognizable at first glance; and if a little care be taken, there is no difficulty in separating the younger birds.

"In the adult *Turdus Naumanni* the throat is red, with a few black streaks just apparent; in *Turdus fuscatus* (see the figure in Gould's 'Birds of Asia,' part iv.) the throat is white. In the young of both species the throat is thickly striated with triangular blackish markings. But it is only necessary to refer to the figures and descriptions given in the new volume of 'Naumann,' to convince oneself of the diversity of these two birds."

There can be no doubt about the propriety of introducing *T. fuscatus* into the avi-fauna of Europe, though it is only a straggler therein. As will have been seen above, it is very common in Japan, ranges through Formosa and China, and is common in the Amoor Land. It is also not uncommon in Siberia, and we are told by Professor Blasius, that in drawing up the account for the new edition of Naumann, he had no less than fourteen examples of various ages and plumages for comparison from various museums in Germany and Hungary, and that the bird often occurs in the Carpathians, and is not unfrequently brought into the market as "game" at Pesth and Vienna, ('Ibis,' vol. iv., p. 320, note.) This looks like being something more than a straggler into Europe.

Dr. Radde, in his "Reisen im Suden von Ost Siberien," gives a full account of *Turdus fuscatus*, and as this author assigns his reasons for doubting the existence of *T. Naumanni* as a separate species, I will quote from him at some length.

"The similarity of plumage in the young of *Turdus fuscatus* and *T. ruficollis*, Pallas, has made the distinction between them before they are fully coloured somewhat difficult; and in my opinion this has been the cause of a third species, *Turdus Naumanni*, having been founded, though many good ornithologists have decided opinions both ways."

Dr. Radde had five specimens of *T. fuscatus*, and eighteen of *T. ruficollis*, the result of his collecting, and after again repeating that the youthful plumage of these birds was *quite identical*, he remarks,

—"I pronounce, however, first of all, that the view taken by Herr von Middendorff quite agrees with my own, that *T. Naumanni* cannot be allowed specific distinction, but that it is merely the young of *T. fuscatus* or *T. ruficollis*. Let us now look more closely at the specimens before us of *T. fuscatus*. A female in the first moult, which was killed on the 5th. of September, 1857, in the Bareja Mountains, agrees in no measure with Naumann's description, nor with his two figures in vol. ii., p. 292; (compare pl. 68—2, and 359—2.) Those agree well with older specimens, and especially such as are in their second moult.

The plumage of the young female is remarkable for the almost entire omission of the red-brown tints. The upper parts are brownish grey, and the pointed black arrow-shaped spots on the head are wanting. Only very slightly does the light bordering of the feathers on the back stand out from the ground colour. The rump is an exception, for here the light rusty red mixes with the grey colour of the feathers on the base of the tail feathers. The blackish brown markings of the breast feathers, sharply defined in older birds, are only just indicated in the youthful plumage. On the half of the white breast feathers, dotted with yellow, are blunt blackish triangles, which are somewhat larger on the feathers of the sides. This bird, pl. 7, fig. 6, also a young female (fig. C), which was shot at the same time, agrees with it even to the yellow tone of the ground-colour of the under part of the throat and the less marked superciliary stripe, and it also agrees excellently with Naumann's fig. 2, pl. 359, with the exception of the bordering of the small wing coverts, which are not white, but of a dull reddish tint. In his bird the rusty red on the upper side of the wing occupies a considerable space. If you compare fig. 1, pl. 358, said to be a very old *Naumanni*, with fig. 2, pl. 359, of Naumann, said to be a young male of *fuscatus*, there certainly will be found in this respect a great similarity. At about the age of two years, *T. fuscatus* has rusty-red borderings to the upper grey wing coverts, and the hinder wing feathers mostly on the half of the breadth of the outer edge, and the colouring disappears towards the inside, and gradually shades into the black of the feathers. With increasing age they become broader and broader, and the black diminishes to a minimum at the base of the large coverts, as well as on a small spot at the tip of those feathers on the inner edge.

T. fuscatus in the second year. There are two groups of plumage. The rusty red is either dim or very apparent, especially in those which possess it on the under parts of the body, and those in which it is absent. Six of my specimens belong to the latter, and three

to the former group. The three birds with rusty red colouring are interesting to us, for they represent, more or less, *T. Naumanni* in advanced age."

Dr. Radde here describes a bird which has the striking characteristics of both *T. fuscatus* and *T. ruficollis*, and he calls it the result of a cross between the two. The reviewer of Radde's work, however, in the "Natural History Review," 1865, remarks:—"And here we may remark that Herr Radde has, we believe, committed a serious error in identifying *T. Naumanni*, Temminck, so well distinguished and illustrated in the last supplementary volume of Naumann's 'Vogel Deutschlands,' with *T. ruficollis*, of Pallas; the latter being a very distinct species more nearly allied to *T. atrigularis*. Nor can we believe that the bird figured on pl. 8 of his work is really a hybrid between *T. fuscatus* and *T. ruficollis*. It appears to us to be nothing more than a young *T. Naumanni*. Although the young birds of the latter species are somewhat difficult to distinguish from those of *T. fuscatus*, yet a large suite of specimens renders this task comparatively easy, as we have occasion to know from our examination of the very extensive series of them procured by Mr. Swinhoe in various parts of China."

Dr. Radde, carrying on the idea of hybridism, says that the other two skins in the second moult agree with *T. Naumanni* in the transition plumage perfectly, and these birds are represented in Naumann by fig. 2, pl. 358, where it is designated a two year old bird. After describing these specimens Dr. Radde continues:—

"It is strange to me that after the apparent agreement of the Siberian collected materials, these typical stages of plumage in *T. fuscatus* are those found in greater accordance where *T. ruficollis* is rare, as, for example, in the countries bordering on the mouths of the Amoor; while, on the other hand, in the lands about the source of the river, where that form known as *T. Naumanni* and *T. ruficollis* live together, the typical form of *T. fuscatus* is much more rare.

"It is remarkable that I did not meet with either *T. fuscatus* or *T. ruficollis* in the wide conifer plantations on Lake Baikal. In the east of Sajon, however, *T. fuscatus* breeds in the countries near the sources of the Irkut, in the outermost limits of the woods, especially at the boundary posts of Turansk and Chungnisk. On the 2nd. of July, 1859, the young were already fledged. The principal flocks appear on the Tarei-Nor from the 2nd. to the 5th. of May, their forerunners as early as April 5th. They begin to call about March 25th., and to sing loudly on April 17th. I never saw this bird in the south of Siberia in winter."

Dr. Radde does not describe the old bird, which is unfortunate: he remarks it has been done so often that it is unnecessary; but it is quite evident he got into confusion with his skins. One thing seems quite clear, that the young of *T. Naumanni*, *T. fuscatus*, and *T. ruficollis* are very much alike. Radde says they are undistinguishable, but Mr. Sclater says that in a long series this can be done easily enough.

It is quite probable that the above three forms intercross with each other. Mr. Swinhoe is of this opinion as well as Radde. They constitute, in fact, three races or permanent varieties, and as such must be treated in scientific works as three species.

From Salvadori, ("Fauna d'Italia," p. 84,) I take the following:—"This Thrush is one of the rarest in Italy, and is also very rare all over Europe. I have seen three specimens taken in Italy: one is in the Museum of Turin, and was killed in the neighbourhood of that city in the autumn of 1829; another was taken to the market of Geneva, in the winter of 1862, and makes part of De Negri's collection. I mentioned this bird in a note of my Catalogue of the Birds of Sardinia, but in error I indicated it by the name of *T. Naumanni*. A third I have seen in the collection of Count Camozzi, of Bergamo, and it was captured in Bresciano, in November, 1844. Of this I possess a beautiful drawing, designed and coloured by Professor de Filippi, who gave it to me. This last is a full-grown adult, and is perfectly represented in Naumann's plate 359, fig. 1. If I do not mistake, Professor de Filippi speaks of the capture of this individual in the Congress of the Italian Scientific Association in Naples, and described it under the name of *T. Naumanni*, but Bonaparte with reason thinks that it was in reality *T. fuscatus*. This Thrush belongs to eastern and northern Asia, and is also found in Giappone. I consider the species quite distinct from *T. Naumanni*, which I do not believe has ever occurred in Italy. I retain for this species the name of *T. fuscatus*, Pallas, though it does not appear to me doubtful that to it, and not to *T. pallens*, as Bonaparte will have it, ought to be referred *T. obscurus*, Gmelin.

N.B.—Risso announces, among the birds of passage in Nice, a *Turdus barbaricus*, but nobody knows what it is."

Mr. Swinhoe has most kindly placed in my hands a series of skins of this bird, from which I make the following descriptions:—

Adult male, marked "Ningpo, March, 1872," is a beautifully plumaged bird, as will be seen by reference to my figure. Head and upper back dark olive with black centres to the feathers. Back,

rump, and upper tail coverts have the feathers more or less mixed with rufous. Tail dark brown, having the basal outer webs of the first three on each side rufous. Primaries brown, the outer webs edged with white, and the basal half rufous. Secondaries dark brown, deeply edged with rufous, giving a conspicuous redness to the wings. Lesser wing coverts edged with cream-colour, forming a band near the shoulder. Cheeks black; a broad cream-coloured streak above the eye. Throat and neck cream-colour; a broad band across the crop black, mingled with cream-coloured feathers. Abdomen and under tail coverts dingy white, the flanks mottled with rich brown more or less. Tail feathers below smoky brown. Shoulders and axillary feathers rufous, mottled on the former with white. Rest of under wing rufous, with brown ends. Lower mandible yellow at base. Length nine inches and one fifth; carpus to tip five inches and one fifth; tarsus one inch; tail three inches and a half; beak one inch and one tenth.

An adult female, marked "Shanghai, March, 1873," differs mainly from the above in having less and paler rufous on the upper parts, and a more imperfect band across the upper chest. It is also smaller.

A *young* bird, marked "Ningpo, November, 1868," differs in having still less and paler rufous on the wings; no black pectoral band; but having the chest, neck, and throat covered with dark brown spots. It measures only eight inches, wing four inches and a half, while the beak is entirely black, like that of the young *Naumanni*.

The birds figured are the adult male above described, and a fine immature skin lent to me by Mr. Gould, from Formosa.

Mr. Dresser exhibited at the Zoological Society's Meeting, a year or two ago, some eggs collected by Dr. Drybowski in Siberia, said to belong to this species, and stated that they were very similar to those of the Common Fieldfare. More recently Mr. Dresser has had the best of all reasons for doubting the above eggs, by seeing the real one in the collection of Mr. Swinhoe. This gentleman has kindly offered me a specimen to illustrate this work. As Mr. Dresser observes, it is more like the egg of the Missel Thrush, or rather some of the varieties of the Ring Ouzel, than the Fieldfare.

INSECTIVORÆ.

Family *TURDIDÆ*. (*Bonaparte*.)Genus *TURDUS*. (*Linncæus*.)

RED-NECKED THRUSH.

Turdus ruficollis.

<i>Turdus ruficollis</i> ,	PALLAS; Zool. Rosso Asiat., i., p. 452, No. 93, pl. xxiii.
“ “	GMELIN. LINNÆUS; Syst., i., c. 2, p. 815, No. 47.
“ “	NAUMANN; Vogel Deutsch, vol. 13, p. 317, pl. 360.
“ “	RADDE; Reisen im Suden Siberien.

Specific Characters.—"Magnitudo turdi viscivori. Color suprà ut in eodem. Subtus collum jugulumque totum intensè rufum; pectus et abdomen alba, immaculata. Cauda æqualis, rufa, rectricibus duabus intermediis cinereis."
—PALLAS, Voyages, App. par H. C. Lamarck, p. 47.

THIS bird has been captured once in a young state near Dresden, (Naumann) and once at Heligoland, and therefore is entitled to admission into this work.

T. ruficollis is a native of Northern Asia, and has been described and figured by Radde from Southern Siberia. It is also found in China, where it has been called by Swinhoe the "Red-tailed Fieldfare," but it already had the characteristic name of "Red-necked Thrush," given to it by its discoverer Pallas, who found it inhabiting the high Alps of the Dauria near the torrents, but it was very rare.

Naumann, in the supplementary volume of the Vogel Deutschlands, has figured the adult male as above described, except that he makes the abdomen dirty white above and dusky grey inferiorly with longi-



RED-NECKED THRUSH.



tudinal spots. He also makes the superciliary band deep red both in male and female, thus differing from both *T. Naumanni* and *T. fuscatus*.

Radde's figure is deep red on the throat and neck, the flanks, upper tail coverts, and entire tail of a lighter red, and the abdomen pure unspotted white.

There can be no doubt, I think, that these differences are due to sex and age, and probably partly to intercrossing. I will give the characteristics of each in opposite columns, so that there may be no difficulty in distinguishing them from each other.

Table of Comparative Specific Differences between *Turdus Naumanni*, *T. fuscatus*, and *T. ruficollis*. The two first drawn from male specimens supplied to the author by Robert Swinhoe, Esq.

	<i>T. Naumanni</i> , Tem. adult male.	<i>T. fuscatus</i> , Pall. adult male	<i>T. ruficollis</i> , Pall. from Naumann.
Head.	Olive brown at top, with indistinct darker longitudinal markings. Superciliary streak cream colour. Cheeks olive.	Black, each feather bordered with olive. Superciliary streak broad and cream colour. Cheeks black.	Top of head and cheeks grey. Superciliary streak deep red.
Neck and throat.	Light rufous, with two or three rows of dark spots enclosed by a broad dark brown band passing from each lower band downwards and outwards.	Cream colour, the spots on the side fewer and smaller.	Deep red, with one line of small black spots on the side of neck from gape.
Chest.	Rufous, indistinctly spotted.	Cream colour above, black brown below.	Deep red.
Abdomen and under tail coverts.	Dirty white, spotted with rufous.	Creamy white, covered more thickly on the flanks with black brown spots.	White.
Tail.	Two upper feathers dark olive. Rest of feathers same, with the outer webs broadly rufous.	Dark brown, the basal half of each feather, except the two upper ones, dark rufous.	Red, the two upper feathers grey.
Upper parts.	Back and scapularies olive brown. Greater wing coverts olive edged with cream colour. Secondaries olive. Primaries olive brown, the outer webs slightly fringed with cream colour. Rump rufous, mixed with olive. Carpal joint cream colour.	Back above dark olive, mottled with dark brown. Below dark olive brown, mixed with dark rufous; wing, when closed, dark rusty red in the middle. The lesser wing coverts edged with white, and the lower third of wing dark brown. Rump dark olive, with red longitudinal markings.	Entirely light olive brown. Lesser wing coverts bordered with grey. Primaries darker.
Length.	9 $\frac{2}{5}$ inches.	9 $\frac{1}{5}$ inches.	9 $\frac{5}{8}$ to 10 inches.
From carpal joint to tip of wing.	5 inches.	5 $\frac{1}{5}$ inches.	5 $\frac{1}{8}$ to 5 $\frac{3}{8}$ inches.
Tail.	3 $\frac{1}{2}$ inches.	3 $\frac{3}{4}$ inches.	3 $\frac{3}{4}$ to 4 inches.
Beak from gape.	1 inch.	1 inch.	1 $\frac{1}{2}$ inches.
Tarsus.	1 $\frac{1}{8}$ inches.	1 $\frac{1}{2}$ inches.	1 $\frac{1}{2}$ inches.

Radde says that all his specimens in the second moult varied in two directions from the plumage of the young. First, by the partial difference of the black spots on the throat and neck, which are arranged from the gape backwards along the sides of the neck in two separate interrupted lines. Second, by the rusty colour being much deeper on the whole of the under part of the body, with the exception of the middle space on the abdomen. He also considers that there is a third moult, in which the rusty feathers of the flanks become less deep. The eye-streak, he says, is of a rusty yellow, but not so intense and clear as in the full-plumaged bird.

Dr. Radde saw his first specimen of *T. ruficollis* on the Tarei-Nor on the 13th. of April, 1856. It was very shy. In 1858 he saw three individuals in the Bareja mountains as early as March 24th., and next day there were large flocks, and on the 27th. they were most frequent and common. They were also tolerably common on the mountains on the 4th. and 5th. of September; from the 7th. to the 10th. they were in innumerable quantities; more rare afterward; small flocks on the 23rd., and single birds on the 26th. They departed every morning in the autumn between eight and ten, and were especially numerous in cloudy and stormy weather. They choose the inner parts of the forest, keeping however near the bank of the Amoor. They rested on high elms, maples, and ash trees. They flew fifty or sixty feet high in irregular order, and were frequently accompanied by Variegated Woodpeckers.

Nothing appears to be known about the nidification of this bird.

My figure is from the skin of a young bird, taken near Pekin by Mr. Swinhoe, who says (in lit.) that he never saw it anywhere else than in this locality, where it goes about in winter in flocks. The figure is therefore the young bird in winter plumage.



INSECTIVORÆ.

Family *TURDIDÆ*. (*Bonaparte.*)Genus *TURDUS*. (*Linnaeus.*)

PALE THRUSH.

Turdus pallens.

<i>Turdus pallens</i> ,	PALLAS; Zoog. Ross. As., i., p. 457, (1811-13.)
“ <i>pallidus</i> ,	LATHAM. BLASIUS <i>nec</i> GMELIN.
“ <i>obscurus</i> ,	BONAPARTE. RADDE <i>nec</i> GMELIN.
“ <i>Werneri</i> ,	BONELLI.
“ <i>rufulus</i> ,	DRAPIER.
“ <i>Seyffertitze</i> ,	BREHM.
“ <i>modestus</i> ,	EYTON.
“ <i>javanicus</i> ,	BLYTH.

Specific Characters.—Upper parts brown, with white tips to the greater wing coverts and secondaries. A white streak over the eye; cheek brown; throat dotted with brown longitudinally; neck white; chest pale rufous; abdomen white; under tail coverts white, spotted on each side with pale brown; tail brown. Length: male, seven inches to seven inches and a half; female, seven inches and one third to seven inches and a half.

IN the first edition of this work I figured and described *T. pallidus*, Pallas. In this I fell into a mistake general among ornithologists at that time. Since then, however, it has been discovered that the bird truly entitled to European rank is the *T. pallens* of Pallas, while it is doubtful whether *T. pallidus* ever occurred in Europe at all.

Naumann has confessed himself in error, and has figured the rightful bird in pl. 357, vol. 13, of his well-known work the “Vogel Deutschlands.” Salvadori, in his “Fauna d’Italia,” has the following remarks upon the subject:—“In the period of about a year two individuals of this species (*Turdus pallens*, Pall.) were killed in the neighbourhood

of Turin—one in November, 1827, and the other in November, 1828. Bonelli thought they belonged to a new species, which he called *T. Weneri*, by which name they were described by Gené in the Memoirs of the Royal Academy of Sciences of Turin. We must notice that the figure which accompanies this Memoir is very bad, while the above individuals are perfectly represented in pl. 357 of Naumann. He thought *T. Weneri* of Gené was different from *T. pallens*, which he figured and described, perhaps because he did not recognise it in the bad drawing given by Gené. Blasius, however, in his list of European birds, refers this species in error to *T. pallidus*, Gm. (*Daulius*, Tem.) a species which is quite different, and which besides ought to be excluded from the list of European birds, as its appearance in Europe was founded only on two individuals, which ought not to be referred to *T. pallidus*, Gm., but certainly to *T. pallens*, Pallas, which perhaps Bonaparte erroneously thought was synonymous with *T. obscurus*, Gm. Gray has recently fallen into the same error, of wrongly annexing to the list of birds taken in Italy that of *T. pallidus*, Gm.—H. L., p. 256, sp. 3723.

This Thrush is found in most parts of Asia. The Museum of Turin possesses one individual from Malacca, obtained during the Voyage of the Magenta. The two specimens from the Turin Museum are the only specimens taken in Italy. One of these has been transferred to the Museum of Pisa."

Naumann, Op. cit., p. 293, writes, "The Pale Thrush is, according to Pallas, very common in Siberia, especially in bushes on the banks of the rivers of Dauria, and in the mountain forests near Lake Baikal. Also it has been met with latterly in Java and on the Himalayas, thus spreading over a great part of Asia in its periodical wandering. In the autumn it goes southwards, and in the spring back again towards the north to nest and pass the summer. From those parts of Siberia laying nearest to us a few stragglers, mostly inexperienced young birds, take a more westerly course, according to wind and weather, and pass through New Russia, Poland, as far as Silesia, Saxony, Prussia, and other provinces of Germany. It has been several times observed during the last ten years.....I myself was so fortunate as to catch a young male in the trap of my brother at Klenogerbst, on the 26th. of September. It has also been taken at Herzberg, in Saxony, on the Hartz Mountains, and elsewhere, always at the same time of year (viz: the beginning of autumn,) as the Song Thrush moves in its passage.

It seems to have the same places of residence as the Song Thrush, and appears with us always, it is true, as a rare bird, mostly in

leafy woods where there are plenty of thick shrubs and berry-bearing trees. In their native country they also inhabit mountain forests, and in summer go up tolerably high in the north of Siberia. That it strays to our country singly on the passage is more than probable, but it also lives nearer to us in summer than we think it does, as is shown by the condition of the nesting feathers found upon them. In its habits it seems to resemble most those of the Song Thrush, and the male has a loud, melodious, pleasantly varied song. Its food resembles that of other Thrushes. The male caught by us had only service berries in its crop. Its flesh is quite as good in flavour as that of other Thrushes."

Dr. Radde, while agreeing that Naumann's pl. 357 is a faithful illustration of the true *T. pallens*, Pallas, is of opinion contrary to that of Salvadori, that the bird is also the true *Turdus obscurus* of Gmelin. I collate the following from his work (op. cit.):—

"I had twenty-eight specimens of this Thrush, and from them I gather the following facts.

"In general neither the white spots on the end of the outer tail feathers, nor the faintly marked white spots on the wings, nor the distribution of the grey and white colours of the head are uniformly constant. It is much more common to find the following variations:—

1. Outer tail feathers without white markings. 2. An oblique band on the two outer tail feathers, which sometimes disappears higher up, about half a line broad, which is continued over the outer edge. 3. In one old male the third tail feather also had a white inner border. These differences are not sexual. 4. The individuals without these bands are more in number than those who have them. The yellow of the sides and breast becomes in advancing age clearer and more intense, especially in males. There is some difference in this between the Siberian and Japanese specimens. In Japan birds the grey tints are clearer and deeper, especially on the breast. It is rare to find in the Siberian bird the grey of the sides of the neck evenly distributed; in most individuals the throat is white, and then those grey shaft spots appear in the side which are shown in Naumann's plate 357.

	Male.	Female.
Total length	7.5 to 7.1 inches.	7.3 to 7.5 inches.
Wings	4.5 to 4.6 "	4.2 to 4.6 "
Tail	3 "	3 "
Tarsus	1.2 to 1.1 "	1.1 to 1.2 "

Some of the birds were killed in the middle of May, on their

passage through Mongolia, and were already changing their tail feathers. The first pair appeared on the Tarei-Nor on the 3rd. of May, 1856. I found none in the Bareja Mountains in spring, but I did on the island of Schilka, on the Upper Schilkinski. It was there singing splendidly on the 18th. of May. It begins in strophes of three syllables, and finishes with a light chattering song. They like best to breed among the thick underwood of *Prunus padus* and willows. The first of these Thrushes appeared in their autumn passage at the Tarei-Nor, and I saw them there frequently on the 2nd. and 7th. of September, but very scattered. In the autumn of 1859 the Pale Thrush flew up after the 5th. of September with the Red-throated Thrush (*T. ruficollis*) on the Middle Amur. It occurs at Lake Baikal."

The "Pale Thrush" occurs in North and South China, in Formosa, and Japan, and it is mentioned by Jerdon, in "Supplementary Notes," published in the "Ibis" for 1872, as having been captured by Major Goodwin Austen at Cerra Poorjee, in India, in November. The bird figured in the same paper as *Geocichla dissimilis* is, according to Jerdon, so similar to *Turdus chrysolaus* of Temminck, that he could not help suspecting their identity. If so, as *T. chrysolaus* is a synonym of *T. pallens*, this would be the proper designator of *G. dissimilis*. The bird figured by Jerdon is not, however, the same as *T. pallens*, Pallas. It has no white streak over the eye, and the lower parts are too rusty and otherwise differently marked. Viscount Walden, "Ibis," 1871, has also expressed his opinion that *Turdus pallens* cannot with propriety be referred to the genus *Geocichla*.

Although apparently a common bird in China and the east of Asia, little or nothing is recorded of its habits. This is a great pity. We could willingly dispense with one half that is written about the colour of the feathers and their shades, if naturalists would dwell more upon the habits and nidification of the birds they meet with.

By the kindness of Mr. Dresser I am able to figure and describe this rare and beautiful little Thrush. Mr. Dresser's skin is not sexed, and is marked Malacca, with the name of "Frank" attached.

All the upper parts are olive green, with white margins on the wings, caused by the wing coverts being so tipped. There is a broad streak over the eye, creamy white, and a similar smaller one beneath it. Head, cheeks, primaries, and tail feathers above of a slightly darker olive brown. Throat white, with dark spots or blotches on each side. Chest rusty brown, becoming more purely rufous on the flanks and thighs. Abdomen and under tail coverts

white. Wing and tail beneath slaty grey. Lower mandible yellow, except the tip, which is like the upper one, brown. Legs in the skin yellowish brown. Length eight inches and three eighths; wing, from carpus, six inches and two fifths; tarsus one inch; beak one inch; tail, which is slightly forked, three inches and a half.

INSECTIVORÆ.

Family *TURDIDÆ*. (*Bonaparte*.)Genus *TURDUS*. (*Linnæus*.)

SIBERIAN THRUSH.

Turdus sibiricus.*Turdus sibiricus*," *leucocillus*,*Cychloselys sibiricus*,*Merula sibirica*,*Oreocincla sibirica*,

GMELIN.

PALLAS; Fauna Rossica.

BONAPARTE; Ex. Gm. Cat. Parz., 1856.

BONAPARTE; 1850.

JAUBERT; Ex. Gm. Rich. Orn., p. 202.

Specific Characters.—Plumage bluish black; a pure white stripe from the forehead above the eye to the occiput; some of the feathers on the lower part of abdomen white, with black spots on each side; under tail coverts white barred with black. Length nine inches.

THIS bird is, as its name implies, an inhabitant of Siberia, but it has occurred a sufficient number of times in Europe to merit a place in its avi-fauna.

We have the authority of Pallas for its occurrence in Southern Russia; of Professor Blasius for its appearance in Germany; and M. Jaubert, in his "*Richesses Ornithologiques*," mentions two instances of its having been captured in France. Homeyer has described it as *T. atro-cyaneus*, upon the authority of a fine specimen killed in the north of Germany.

In Dr. Sclater's excellent paper on the "Geographical Distribution of the genus *Turdus*," ("*Ibis*," vol. iii., p. 278,) we find *T. sibiricus* in the palæarctic region, appearing in Siberia, Amoor Land, Japan, and China; and we have its occurrence in these countries verified by Mr. Swinhoe and other writers. Dr. Schrenck, however, does not mention it in his "*Amur Reise*."



SIBERIAN THRUSH.

Since the publication of the first edition the following information about this bird has been published. Mr. Swinhoe, on the Birds of China, "P. Z. S.," 1863, p. 279, remarks:—"A male in complete plumage, shot at Amoy, 19th. April, 1861, was of a smoky black, with a pure white eye brow, white on the axillaries, a white bar across the under wings, and drops of white on the medial belly line and crissum. Bill black; inside of mouth orange ochre; edge of rictus pale dusky yellow; legs and claws ochre, with saffron base to tarsi and soles of toes."

"This Thrush is said to be common in Siberia. In Japan it probably breeds, as Captain Blakiston brought young birds from Hakodadi. In the South of China it is rare, occurring occasionally during its migrations. It is said to have been procured as far south as Java, but is not noticed by Von Schrenck from Amur-land. The females are brown and Thrush-like, and the plumage closely assimilates the species to *Oreocincla*, which group it also approaches in the somewhat spinous rigidity of the feathers of its rump, and in the white bar across its under wing."

Captain Blakiston ("Ibis," 1863, p. 96,) thus alludes to the young birds mentioned above:—"These were shot by myself from among a number in a pine wood near Hakodadi in August. The most striking features which distinguish the young of this species from that of *T. cardis*, (with which Captain B. had at first placed them,) are the light coloured streaks in the middle of the feathers of the head, back, and wing coverts. The young are subject to as great variation in the general colour of the plumage as those of *T. cardis*. My two specimens, which are both young males, differ if anything rather more than the two young given in pl. 29 of the 'Fauna Japonica.'"

I copy the following from Dr. Radde's "Reisen im Suden von Ost Siberien," vol. ii., p. 237:—"I met with this rare species twice on its passage. An old male in the spring of 1856, on the 8th. of May, on the Tarei-Nor, and a young female on May 9th. of same year. The latter was killed. According to Naumann junior's description, which he gives in the Appendix to his father's work, page 348, *et seq.*, this bird ranks among immature females, moulting from the nestling to the youthful plumage. According to this, the back and rump have a slight sprinkling of leaden grey, which covers the somewhat unicolorous olive brownish grey of the upper parts of the side of the body. The wings also have the ground-colour almost brown, and the yellow spots at the tips of the upper wing coverts are visible, and are also seen on the separate small feathers of the wrist. Our bird differs somewhat from the figure in 'Fauna Japonica,'

No. 31, which is also a young bird, but agrees in every other respect very well with that figure.

On the newly shot bird the feet were of a waxen yellow colour: the claws paler; the upper mandible a deep black, light horn brown at the tip. The lower mandible below the gape waxen yellow; the edges on the side and tip horn-colour. This bird lived in company with *Turdus pallens* in the gardens of Kalassatajessk."

In the "Ibis" for 1870, p. 196, Messrs. Elwes and Buckley record a specimen shot by A. Cullen near Kustendji.

Information about the nidification and habits of this bird is still a desideratum.

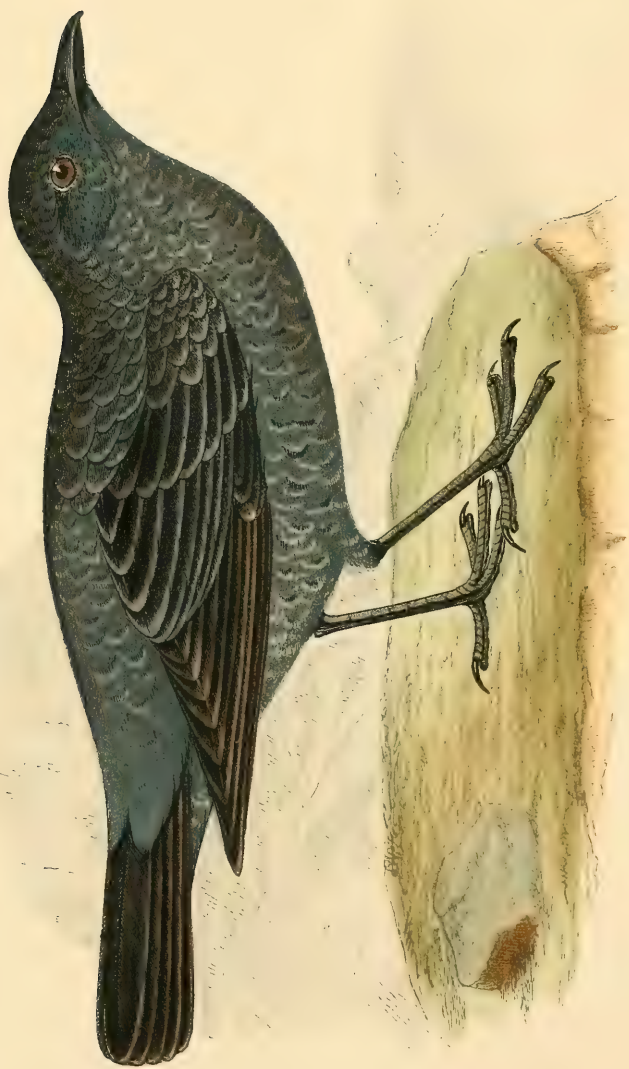
The adult male has the whole plumage of a dark bluish black; the throat and front of the neck a deep black; very large eyebrows of a pure white; the wing and tail feathers of a dull black; lower part of abdomen white, with black spots on each side, forming an oblique band upon the internal surface of these parts; the three lateral feathers of the tail and the under coverts terminated by a white spot; beak black; feet brown. Length nine inches.

The adult female has the throat whitish, marked with little brown dots, and lateral part framed by a longitudinal black band; the cheeks speckled with whitish brown; the large band of the eyebrow a yellowish white. The rest like the male.

The young of the year differ considerably in the colours of their plumage. All the upper parts of an olive brown; the wings and tail a deep brown, the primaries having on their inner web a tint of russet white; the eyebrows a yellowish white, marked with brown streaks: throat and cheeks of a reddish white, speckled with olive, but each feather having in the centre a great whitish or slightly reddish spot, in the shape of a spear head; flanks, thighs, sides of belly, and abdomen of an olive tint, so that only the central line of the belly is pure white; great white lanceolated spots terminate the feathers underneath the tail; beak and feet brown.

My figure is an adult male killed in China, the skin of which was kindly sent to me by Mr. Gould.

This bird has been beautifully figured by Mr. Gould in his magnificent work the "Birds of Great Britain," in consequence of a single specimen having been shot by Mr. Drewitz at St. Catherine's Hill, near Guilford, in February, 1855. The specimen, which was a female, is now in the possession of my friend Mr. Bond. It is figured in Mr. Gould's plate. This single capture does not, however, in my opinion, justify me in leaving this bird out of my work, more particularly as Mr. Gould's work is only accessible to a few.



INSECTIVORÆ.

Family *TURDIDÆ*.Genus *PETROCINCLA*. (*Sykes.*)

Generic Characters.—Beak elongated and sub-cylindrical, the edges of inferior mandible notched towards the point, to correspond with the curve of the upper mandible. Nostrils basal, lateral, ovoid, and partly closed by a membrane; tarsi of medium length; wings passing the middle of the tail; first quill feather very short, the third the longest, the second a little shorter than the third. Tail feathers equal at the end.

BLUE THRUSH.

Petrocincla cyanea.

<i>Petrocincla cyanea</i> ,	GOULD. DEGLAND. NAUMANN.
“ <i>cyana</i> ,	KEYSERLING AND BLASIUS.
<i>Turdus cyaneus</i> ,	LINNÆUS. GMELIN. LATHAM.
“ “	MEYER AND WOLFF. TEMMINCK.
“ “	VIEILLOT. SCHINZ. SCHLEGEL.
“ <i>solitarius</i> , (<i>female</i> ,) and	
<i>Manillensis</i> , (<i>young</i> ,)	LATHAM; Index, p. 345.
<i>Merula cœrulea</i> ,	BRISSON.
<i>Petrocossyphus cyaneus</i> ,	BOIE. BONAPARTE. LOCHE; Cat.
“ “	des Oiseaux Observés en Algérie.
	GRAY; H. L., No. 3805.
<i>Merle de Roche bleu</i> ,	OF THE FRENCH.
<i>Blaue Steindrossel</i> ,	OF THE GERMANS.
<i>Passera solitaria</i> ,	OF THE ITALIANS.

Specific Characters.—The two middle feathers of the tail longer than the rest. Ground of the plumage blue or bluish. Length eight inches and a half.

TEMMINCK placed the two European Rock Thrushes in what he called the *Saxicoles*—the second division or section of his genus *Turdus*—in consequence of their affinity to the Wheatears and Stonechats. They differ, however, from these latter in having the beak of the true Thrushes. On the other hand they are more solitary in their habits, they never migrate in flocks, and, although not exclusively insectivorous, they are much more so than the Thrushes, properly so called. In the present notice, therefore, I shall follow the example of Gould, Keyserling and Blasius, and Degland, and place the Blue Thrush in the genus *Petrocincla* of Vigors, with which family, as observed by Mr. Gould, it is evidently the connecting link. Prince Bonaparte has adopted the arrangement of Boie, who formed a separate genus, *Petrocossyphus*, for this bird, under which name it is alluded to by Captain Loche, as inhabiting the highest regions of Algeria.

The Blue Thrush inhabits the South of France, Spain, Sardinia, the Levant, and Italy. It is also found in the Morea; it is abundant in the valleys of Piedmont, less common in Switzerland and the Tyrol, still rarer in the Vosges, and abundant in the Apennines. It is spread over Greece, and ranges, according to Brehm, into parts of Asia, and the northern parts of Africa.

In its habits this bird is solitary, rarely perching on trees. It is found among retired ruins and wild unfrequented rocks and caverns, where, seated upon the highest point it can find, it sends forth its sweet, melancholy, and plaintive note, giving an additional charm to the picturesque and beautiful scenery it frequents. It is a shy bird. It builds in the crevices of rocks, on church towers, ruins of mountain castles, and other high buildings. Its nest is of considerable size, formed of grass and straw, like a shallow bowl, and bound together with bents and fibres of roots.

In the beginning of May it lays five oval shining greenish blue eggs, having upon them faint spots of violet grey, over which are reddish or red brown markings. Some are also unspotted. They differ from *P. saxatilis* in being larger, of a paler colour, and in the much clearer spot markings.—Brehm, in Bädcker's European Eggs.

Count Von der Mühle, in his "Grecian Ornithology," remarks of this bird:—"It is very plentiful on the rocky hills of the Morea and in the islands. In its habits and song it has a great resemblance to the Stonechats. In summer it frequents steep rocky places, but in the latter part of autumn it comes plentifully into the towns, where it may be observed on the topmost ridges of the houses, singing and looking out for food. It is wary, and carefully avoids all traps. The nest is

very difficult to find. I once was shewn one built on the *Cratægus pyracantha*, or, as it is commonly called, 'Moses in the Burning Bush.' The nest was built simply of grass, and the young were brought up, tamed, and sold in Turkey."

Salvadori ("Fauna d'Italia") writes:—"The '*Passera solitaria*' is stationary in the central and southern parts of Italy, migratory in the northern parts. It inhabits rocky mountains, but occasionally it establishes itself upon towers and other old edifices in villages and cities. When I was young it was rather common in the ancient city of Spello, near Fuligno, in Umbria, where it frequented the roofs of the houses, 'always resting upon the ledges of the roofs or on the summits of the chimneys. It sang with a rather melodious voice, especially in the morning hours, and was kept frequently in cages by reason of its beautiful voice. It nests in the cavities of projecting rocks, in inaccessible places, and also in the holes of walls. The nest is generally closely intertwined with roots, stalks, leaves, and horse-hair. The eggs, in number from five to six, are of a greenish azure colour, without spots. It appears that it not unfrequently breeds with *P. saxatilis*, and upon one of the hybrids thus produced has been founded *T. azureus*, Lebrun, in Crespon's 'Fauna Meridionale,' p. 179. Another hybrid, which was quite azure, except the belly, which was a bright fulvous, is preserved in the Turin Museum, and was killed near Tunis by the Marquis Orazio Antinori."

Of this bird in North-east Africa, Von Heuglin remarks: "The Blue Thrush is a bird of passage in the autumn and spring in Egypt, Nubia, Abyssinia, and Arabia; but not so frequent as the Rock Thrush; perhaps also not going so far towards the south. Young birds I met with more frequently than old ones. It may possibly breed sometimes in the north of our field of observation. It shows itself more on solitary palm-trees and acacias, while the Rock Thrush chooses rocks, ruins, and walls, and the desert land for its residence, but is known to visit the roofs of country-houses and of mosques. Both species live a somewhat isolated life, and seem to possess no sociable disposition. It breeds in Algeria, Loche; in Palestine, Tristr.; as well as in Asia Minor, Krüper; India; in the South of Europe."

In plumage the male and female differ considerably. The adult male has the whole of the upper surface of a deep greyish blue, many of the feathers margined with grey. Wings and tail black, with the wing coverts clear, and the tail quills bordered with obscure blue. The under parts light blue, with obscure narrow bars of brown edged with white on the chest and abdomen; beak and tarsi black.

The adult female has the whole upper parts bluish brown, with the

feathers bordered with ash-colour. Wings and tail blackish brown, each feather edged with bluish ash; on the crop and neck large reddish spots; the other under parts streaked and variegated with a bluish tint, ash-colour, or brown.

The young have the upper and under parts of the body of an ashy brown, sprinkled with small whitish spots; the back and neck tinted with a bluish hue; wings and tail blackish brown.

After the first moult and when a year old, according to Degland, the males have a plumage of a less vivid blue, with black and bluish narrow crescents placed irregularly on the inferior parts of the body; sometimes also some are found on the upper parts, but they are less apparent, and have a reddish tint.

The figure is from a skin kindly sent to me by Mr. Gould.

The egg figured is from my own collection. It was taken by Dr. Krüper in the neighbourhood of Smyrna.

Figured by Buffon, Pl. enl., 250, as *Merle solitaire femelle d'Italie*, and as *Solitaire de Manille*, Pl. enl., 564, f. 2, and as *Le Merle Bleu*, p. 355, t. 24; Edwards, pl. 18; Temminck and Laugier, Atlas; Vieillot, Faun. France, pl. 70 and 71; Roux, Ornith. Prov., pl. 173 and 174, (male and female;) Gould, B. of E.; Bouteil, Ornith. du Dauph., pl. 21; Dresser, B. of E., (male and female.)

I take this opportunity of noticing several species, which have been included in the European fauna. The question of determining with exactness the claims of admission into the European lists of many of these stragglers is very difficult, and I have already incurred the rebuke of the reviewer of my work in the "Ibis" on this point. Sins of omission are, however, equally great with those of commission, and I must content myself with the exercise of the best judgment I can give of the evidence on both sides, and perhaps by this means I shall at least avoid the error of being too confident upon a confessedly difficult question in ornithology.

Turdus Barbaricus, Gmelin.—Frequents, according to Risso, the environs of Nice. I cannot give any account of this doubtful species, and therefore pass it in silence.

Turdus rufus, Brisson.—Said by Schinz to have been observed in England, but he has not indicated the source from whence he has derived this information.

Turdus Swainsoni, Cabanis,—(*T. solitarius partim*, Wilson; *T. olivaceus*, Giraud; and *T. obsoletus*, Lawrence;)—has been captured several times in Europe. Two in Belgium; another in France, near Namur, in 1844, which is in the possession of the Baron de Selys-Longchamps; and one in Liguria, which was kept alive by Durazzo the naturalist several months. Durazzo describes its song as different from that of *T. musicus*, and that it never uttered the Thrushes' whistle. Sometimes it sang rather sweetly in the middle of the night.

This bird is, however, an inhabitant of the eastern part of North America, and I may take this opportunity of saying that American birds will be treated in this work as stragglers merely, and few of them or their eggs will be figured. A short description will, however, be given of each.

Dr. Sclater has been kind enough to lend me an authentic skin of this bird from Guatemala, on the authority of Mr. Skinner. This bird has the appearance of a small Song Thrush, from which, however, it is readily distinguished. The upper parts are of a uniform dark olive green; throat, neck, and chest white, thickly spotted on each side of the throat with triangular dark olive spots, which spread over the chest more uniformly. The abdomen dusky. Under tail coverts white, with faint brown spots on each side; under part of tail feathers and wing feathers slaty brown. Length seven inches; wing four inches; tarsus one inch; beak seven eighths of an inch.

I have a specimen of the egg, sent to me by Dr. Brewer, of Boston. It only measures six eighths of an inch by five eighths, about the size of a Chaffinch's egg, of a greenish colour, thickly studded about the smaller end, and sparingly elsewhere, with rusty blotches.

Turdus Pallasii, Cabanis; *T. minor*, Bonaparte.—The "Hermit Thrush," which is also a north-eastern American species, has been captured in Germany. It is a small bird, rather larger than *T. Swainsoni*. It has the upper parts of "a light olive brown, with a scarcely perceptible shade of reddish, passing, however, into decided rufous on the rump, upper tail coverts, and tail, and to a less degree on the outer surface of the wings." This distinguishes it at once from *T. Swainsoni*, with which it has been frequently confounded. "The sides of the throat and the fore part of the breast with rather sharply defined subtriangular spots of dark olive brown; the sides of the breast with paler and less distinct brown spots of the same. Sides of the body under the wings of a paler shade than the back;

a whitish ring round the eye; ear coverts very obscurely streaked with paler. Length 7.50 inches; wing 3.84 inches; tail 3.25 inches; tarsus 1.16 inches.”—(BAIRD.)

I have two eggs of this species, sent me by Mr. Buckley, of Birmingham. They measure seven eighths of an inch by six eighths, and are light blue in colour, without spots.

Turdus aureus, Pallas; *T. Bechsteinii*, Naumann.—In his “Catalogue” Schlegel says this bird has been observed many times in Germany. In his observations, page 70, he says its claim rests upon a specimen reported by Gloger to have been killed in Silesia. It is omitted from the European list by Temminck and Degland, the latter of whom remarks that its appearance within the geographical limits of Europe has not been satisfactorily demonstrated. It is quite probable that it may occasionally appear, as well as other Asiatic species recorded, but I agree with Degland that the evidence on this point is not satisfactory.

Ixos obscurus.—I am very sorry to be obliged to omit this bird in this edition, but there is really no satisfactory proof that it has ever been taken in Europe.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus ACCENTOR. (*Bechstein.*)

Generic Characters.—Beak of medium length, robust, straight, conical, and pointed. Edges of each mandible compressed, upper one notched near the point. Nostrils basal, naked, pierced in a membrane of considerable size. Feet robust, three toes in front and one behind, the exterior joined at its base to the middle toe; the claw of the hind toe much the longest and the most curved. First wing primary nearly obsolete, the second nearly as long as the third, which is the longest in the wing.

MOUNTAIN ACCENTOR.

Accentor montanellus.

<i>Motacilla montanellus,</i>	PALLAS; Voyage, vol. 8, French Edition, Appendix, p. 71, 1776.
<i>Accentor montanellus,</i>	TEMMINCK; Man., 1820.
“ “	BONAPARTE. SCHINZ.
“ “	KEYSERLING AND BLASIUS.
“ “	SCHLEGEL. DEGLAND.
<i>Accenteur Montagnard,</i>	OF THE FRENCH.
<i>Berg Fluhvogel,</i>	OF THE GERMANS.

Specific Characters.—A double row of transverse yellow spots on the wing. Head above deep black; shafts of the tail quill feathers russet. Length about six inches. Culmen very black; lower mandible, especially at root, lighter; tarsi dull whitish yellow; claws grey brown; iris light yellow brown.

THE group of birds, of which the present is the first notice, is one of great interest to all who take the slightest pleasure in natural history. It contains all our summer Warblers—those harbingers of

coming spring, which greet us with their merry or plaintive notes, or, as in the Nightingale, waken up the stillness of the night with that full, rich, and beautiful song, which is unequalled by any music in the world. In all our summer walks or rides, however cultivated or barren the scenery, by wood or river, mountain or lake, we are sure either to see or hear some member of the family. We associate with our earliest days the croak of the Whitethroat, as flitting from branch to branch, or winding her way like a snake through the dense fence; she sought how often in vain to scare us from her nest. Who does not remember the "Renny Red-tail," and those old pollards in that quiet lane where the half holidays of our youth were spent? or who will not always think with a corresponding touch of melancholy, of that low, soft, plaintive rebuke which the little green Willow Warbler poured into the ears of those who invaded its domed nest, so carefully hidden in the long grass; or the rich thrill of that saucy Blackcap, as he heralds the coming warmth of spring and summer, by the song of triumph which announces his nuptial victory against all rivals? Then, again, there is the Grasshopper Warbler, with his invisible form and long sibilant note, and the Reed Wren, with his garrulous lecture, as he winds among the herbage by the river side, or the Sedge Warbler, as it sends forth in the still night its song of rivalry with the Nightingale. All these are salient beauties in that mental landscape which the naturalist often creates for himself, when the fortunes of life may have carried him among sterner and less poetical realities.

The *Sylviidæ* may be taken as typical of the *Insectivoræ*—their food being almost exclusively insects. But this is not quite true, for, notwithstanding the assertion of the late Mr. Yarrell to the contrary, the Willow Warbler will sometimes join in the more constant depredations of the Whitethroat.

Temminck divided the group into the *Riverains*, or those whose habits were aquatic; *Sylvains*, or those found more or less inhabiting woods; and *Muscivores*, or those which live principally upon flies, which they catch on leaves or on the wing. Count Von der Mühle has separated them into seven sections, which form, I think, a more natural division, and which I adopted in the first edition, but as I think it of great importance that a work like this should harmonize as much as possible with standard works on our British Birds, I shall in dealing with this family in the present edition follow as closely as I can the arrangement adopted by writers on the Birds of Great Britain.

The Mountain Accentor is an inhabitant of the south-east of Europe, being found principally in Siberia, Russia, and the Crimea. It occurs, but accidentally, in the south of Hungary, in the Neapolitan

States, and Dalmatia. Its range in Asia is along the same latitude as in Europe. Mr. Tristram informs me that the only specimen he ever saw was in the Museum at Palermo.

I copy the following account from Middendorff's capture of this bird in his "Sibirische Reise," vol. ii., p. 172:—

"One specimen only of this bird was shot in the Stanowój chain of mountains. It perfectly agrees with Pallas's description and Gould's drawing, and consequently entirely removes the doubt which Brandt expressed relating to the identity of the Siberian and European Birds, as well as to that which received the name of *Accentor Temminckii*. The specimen mentioned by Brandt is in the winter plumage; therefore being in a transition state, it is fainter in colour, and greyish. The stripe over the eyes is white; the throat dirty white; breast and belly light rust yellow. On the back of the bird the colours are an admixture of rust brown and ash grey, which latter predominates, especially about the head and nape. The spots have the same colour as in the summer plumage, but in the latter they extend more towards the wings. The Accentor, *Atro-gularis* of Brandt, differs from *A. montanellus* essentially in the black throat."

Mr. Swinhoe (P. Z. S., 1870, p. 125,) records the occurrence of two specimens of this bird at Pekin, and Canon Tristram, Ibis, 1870, p. 494, says that he has received specimens from the Amoor and Siberia, which confirm the supposition above expressed by Middendorff, that *A. Temminckii*, Brandt, and *A. montanellus*, Temminck, are identical.—"My winter-shot specimen," says Canon Tristram, "corresponds exactly with the colouration of Dr. Brandt's bird, having the supercilia and breast whitish, instead of buff, while the breeding plumage of another specimen is exactly that figured by Gould and described by Temminck. It is at least a consolation to perplexed lovers of the Sylviidæ, that they need not be harrassed any longer by doubts as to which species of Accentor is entitled to a place in the European list, as the same species ranges from east to west of Northern Asia."

Dr. Gustavus Radde, in his "Reisen im Süden von Ost Siberien," has the following remarks about this bird:—

"It is remarkable that out of sixteen specimens of this bird of passage which I killed on their route through Mongolia, that only four were males, twelve being females. It is possible that in this as in other species the two sexes travel in separate flocks. (We know this to be the case with our migratory birds when they come to us in spring. C. R. B.) An intermediate form between this and *Accentor Atrogularis*, Brehm, is wholly wanting. Although all the birds brought home by me were in the faded winter plumage, having been killed in

April, 1856, yet I am inclined to think that the eastern bird is of a somewhat darker colour. One specimen sent to me by Herr Wulfius, shot at St. Alga Bay in February, 1859, 44° N.L., was of so lively a colour that I never saw but one specimen like it, which was among some individuals freshly moulted, killed on the Bareja mountains. My specimens agree well with Naumann's figure, pl. 92., fig. 2, but the feathers on the breast and belly are not so much rubbed off, leaving the grey middle space with a ground border or edge. I cannot find any sexual distinctive marks. The width of the band over the eyebrow is variable. In respect to size, all my specimens from Mongolia are larger than those obtained farther eastward. In the living birds the upper part of the beak was very black, the lower part, especially at the root, lighter; the feet a dull whitish yellow; the claws grey brown. Iris a light yellow brown.

This bird is not found in the highly mountainous region of the west, at least I could not find it either in the Eastern Sajan or near the Lake of Baikal. On the other hand it was seen not rarely on its passage at the Tarei-Nor as early as March 16th., (1856,) when the advanced part of the flight were first seen, the rest following about a month later. I saw none of these birds in autumn, but a year later when the autumn passage had closed, and ice had appeared on the Amoor, I shot two as they were bustling about among the willows on the shore."

The following is Temminck's description of this bird:—"The adult male has a hood of deep black covering the head and occiput; a large equally black band passes below the eyes, and covers the orifices of the ears; a large yellow eyebrow takes its origin at the base of the beak, and is continued to the nape; the upper parts of the body and the scapularies are of an ashy russet, marked with large longitudinal spots of a brick red. Wings of an ashy brown, bordered with grey russet; two rows of small yellow points form on the wing a double band; tail of a unicolorous brown, but the feather shafts of a russet brown. All the inferior parts are of an isabel yellow, varied on the crop with brown spots, and on the flanks with longitudinal spots of a grey russet; base of the beak yellow, point brown; feet yellowish. Length five inches three or four lines. The female is of a blackish brown on the head, on the occiput, and on the auditory orifices. It does not otherwise differ from the male."

I have much pleasure in giving here a figure of the egg of *Accentor montanellus*, kindly sent me by Professor Moquin-Tandon, with the following remarks:—"My two eggs of this bird are exactly alike in shape and colour; they are twenty-three millimetres in long diameter,



1. MOUNTAIN ACCENTOR.

2. RUBY-THROATED WARBLER. 3. EASTERN NIGHTINGALE.

and sixteen in the short. The colour pale and uniform azure blue. They were taken in the south of Hungary, and sent to me by my friend, M. Raoul de Baracé D'Angers."

The Mountain Accentor is stated to feed in the spring upon the same kind of food as its congener, our well-known old friend the Hedge Sparrow. In winter Temminck thinks it may be guilty of feeding upon seeds. Of its propagation I find authors are silent.

My figure is taken by permission from Mr. Gould's B. of E.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus CALLIOPE. (Gould.)

Generic Characters.—Bill of moderate length and strength; wings moderate, first quill very short, second equal to seventh; tail very slightly rounded, the outer feathers being a little shorter than the penultimate pair; tarsus moderately long and stout; the feet large, hind toe long; claws long and not much curved.

RUBY-THROATED WARBLER.

Calliope camtschatkensis.

<i>Calliope camtschatkensis,</i>	BONAPARTE. BLYTH. HODGSON. JERDON.
<i>Motacilla calliope,</i>	PALLAS; VOY., 1776.
“ “	GMELIN; Syst. N., 1788.
<i>Turdus camtschatkensis,</i>	GMELIN; S. N. L.
“ <i>calliope,</i>	LATHAM; 1790.
<i>Accentor calliope,</i>	TEMMINCK; 1835.
<i>Calliope Lathamii,</i>	GOULD.
<i>Lusciola (melodes) calliope,</i>	KEYSERLING AND BLASIUS; 1840.
“ “ “	SCHLEGEL; 1844.
<i>Cyanecula calliope,</i>	GRAY; Gen. Birds.
<i>Sylvia calliope,</i>	MÜHLE; 1856.
<i>Gorge en feu calliope,</i>	OF THE FRENCH.
<i>Feuerkehlchen Sänger,</i>	OF THE GERMANS.
<i>Gunpigera,</i>	BENGAL.
<i>Gangular,</i>	NEPAL.
<i>Nogotto,</i>	JAPAN.

Specific Characters.—Upper parts olive green; primaries and tail hair brown. Under parts whitish, mottled with olive; throat and neck of a clear brilliant vermilion red, lighter in the female. Length of male six inches and a half; carpus to tip three inches; tarsus one inch and three fifths; middle toe one inch and one fifth. Female rather less.



RUBY-THROATED WARBLER.

THIS beautiful Warbler is an inhabitant of India, the Philippine Islands, Japan, China, Formosa, and other parts of the eastern world. It is also found in Siberia, Kamtschatka, and occasionally in Russia and the Crimea, in consequence of which it has been introduced into the European fauna. According to Blyth it is common in Lower Bengal during the cold season. In Eastern Siberia it is found plentifully at Jenisei, Selenga, and Angara, where it arrives in May and disappears in September. It was found by Schrenk in the Amoor Land.

It was placed by Temminck among the Accentors, and by Mühle in the genus *Sylvia*, near the Blue-throated Warbler. Its long synonymy will shew the contest which has arisen in men's minds as to the right designation of this interesting songster. But if a bird which in structure and many parts of its plumage closely resembles the Nightingale, which, as we are told by Pallas, frequents willow bushes, from the top of which, emulating the queen of song, it sends forth its glorious notes at sunrise, noon, or midnight alike; if, I say, such a bird does not deserve to be ranked among the Warblers, and to stand high in the well-marked family of *Sylviidæ*, I cannot understand how we are to make natural affinities the bond or links of classification. I have placed it in Gould's genus *Calliope*.

That indefatigable and excellent ornithologist, Mr. Swinhoe, sends us the following account from China, (P. Z. S., 1863, p. 292):—"Male with fine crimson throat. Female with throat whitish, and without the white and black that ornaments the face of the male. . When passing our coast in spring the young males are found returning without having acquired the adult tints, usually only a few reddish feathers appearing on the throat; but the change of hue (not moult) goes on very rapidly, and probably would be perfected by the time of their arrival at their northern destination. The young males can be readily distinguished from the females by their much whiter throat and darker lores. These birds touch at Amoy in their northward migration in April; I would hence infer that they had been a long way south for their winter. Their summer range is all through North China, Mantchuria as far as Kamtschatka. I found them at Pekin in October, but they were young birds and might have been late in their summer migrations. They occur abundantly, I am told, during winter in Hindostan. These would be birds from the Siberian regions. Our northern migrants would be expected to winter in Siam and the Malayan peninsula, whence I believe specimens have been received. In form these birds are intermediate between the Robins and the Reed Warblers."

The Ruby-throat is found, according to Jerdon, chiefly in Northern

and Central India. "I never saw it," remarks that lamented naturalist, "south of the Nerbudda except once, on board ship a little south of Bombay, where one took refuge in the month of November. It is most common in Bengal, and the eastern side of India, and is a cold weather visitant only. It extends throughout Central and Northern Asia as far as Kamtschatka, whence it was first brought; and it has occasionally been killed in Europe. In its manners it is shy, solitary, and silent; haunts thickets and underwood, and feeds on the ground on various insects. It is said especially to frequent the covered plantations of the Betel-Vine."

Two other species have been described in the Indian Fauna, viz: *Calliope pectoralis*, the White-tailed Ruby Warbler, and *C. Yeatmani*, taken at Pillenbheet in the North-west Provinces, and sent to Mr. Tristram by Mr. Brooks, who described it, "Ibis," 1870, p. 444, as an exact miniature of *C. Kamtschatkensis*.

Dr. Leopold Von Schrenck, in his "Vogel des Amur-Landes," says of this bird, "Two males of this beautiful bird of Eastern Asia, which agree perfectly with skins of Middendorff from Udskoi-ostrog, and with specimens in our Museum from China, as well as the description of Pallas, and the figure of Gould, were killed by Herr Maack in the bushes on the Amur River. One on the 26th. of July near the mouth of the Ussuri, the other on Sep. 19th., a little above the Bareja Mountains. The first (July) shows all over the body so thin a plumage that the under wing feathers and the middle tail feathers towards the ends were scarcely more than the naked shaft. Yet the moulting had not begun, and not a single fresh feather was to be found anywhere. The other specimen, on the contrary, (Sep.,) had completed its moult, and had therefore many fresh and beautiful feathers. Above a strong olive brown shading; below a dull yellowish colour, which disappears with the loss of the edges of the feathers, so that the back is then only greyish brown. Near the crop grey, and the front white. The beautiful red of the throat then becomes paler, and has no longer the silver shining on the tips of the feathers."

Mr. Stewart, Deputy Surgeon General, informs me that he got specimens of this bird in various parts of upper India, but only in the cold season. "It is of retired habits," he writes, "frequenting grounds and gardens. It has a sweet note, like that of the large Black and White Wagtail, *M. melanoptera*."

Radde has the following remarks of this bird in Eastern Siberia:—"Among nine specimens brought home with me I found only one female, the rest were old males. The male birds move about in small flocks separately from the females. In plumage all the specimens show

great uniformity, only sometimes the grey brown which surrounds the red throat obscures a blackish colour. The throat of the female is dull white; the streak over the eyebrow scarcely marked, and the moustache not black but brownish grey. *Au reste* I observe no distinction between male and female. The early appearance of this beautiful bird in the southernmost regions of Eastern Siberia is remarkable. H. Maximowicz killed a male on the Upper Ussuri as early as the 6th. of April, 1860. In Mongolia it is a month later. The first three males were killed on May 6th., 1856. On this day a strong wind was blowing, which towards evening came from the north, and it rained hard. They seem to like moving in such weather.

In autumn they begin to move about August 22nd., to the Tarei-Nor. Three of these birds lived in a skilfully made hedge, from which they came out and fed like Blue-throats, and were very tame. It begins to sing about May 29th., chiefly at night. In the daytime it seeks the tops of young birches or willows to rest upon. Like the Nightingale it begins with the syllable "tzju," which in some degree resembles that of the Lark. The rattle, though always weak, is never wanting. On the 5th. of July, 1855, this bird was on the moult. A male three years old, living in confinement, had the throat slightly tinged with red. In a cage these birds will sing till August. They like light lands, avoiding thick dark woods."

Of the nidification of this bird we know very little. Pallas tells us that it builds a careless nest, and that its eggs are greenish in colour, and that its call-note may be heard as it flies. It is entirely insectivorous.

My figure of the egg is taken from the "Sibirische Reise" of Middendorff. The Warthausen collection only contains one, and that was so much broken that Von Heuglin did not venture to draw it for me.

Male. The whole upper part of the body is olive green; top of the head, primaries, and tail, umber brown tinged with olive; a clear white streak over the eyes, and another larger one extending from the base of the lower mandible to the middle of the side of the neck. The lore and base of the inferior mandible deep black; the throat and upper part of the neck brilliant vermilion red, bordered with dark grey; middle of abdomen and under tail coverts bluish white; crop and flanks greenish grey or olive brown; middle tail feathers the longest, and rounded; the side feathers, particularly the outermost ones, pointed. Beak and iris brown; feet brown. In autumn the splendid red throat is covered with white feathers.

The female has the upper parts like the male, but the red on the

throat is much lighter, and in some specimens it is described as being more of a rosy tint. In the East Indian specimen before me, sent by M. Verreaux, the vermilion red is still retained, though lighter, and with a whitish spot in the centre. In my specimen the lore is black, and the vermilion red is surrounded by a bright grey border, becoming black as it comes in contact with the white line which extends from the base of the mandibles.

My figure of this bird is a male in breeding plumage, from an Indian specimen sent to me by M. Verreaux. It has also been figured by Gould, in "B. of E."



EASTERN NIGHTINGALE.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus DAULIAS. (Boie.)

Generic Characters.—Bill moderate, straight; the tip slightly deflected and emarginated. Nostrils basal, supernal, and round. Wings moderate; first quill very short, second longer than fifth, the third longest in the wing. Tail rounded. Legs long and slender; the tarsi covered in front by a single scale; the toes long; claws rather short.

EASTERN NIGHTINGALE.

Daulias philomela.

<i>Daulias philomela</i> ,	NEWTON; in Yarrell, 4th. Ed.
“ “	SCLATER; Cat. Zoo. Soc.
<i>Luscinia major</i> ,	BRISSON; Ornith., 1760. NAUMANN.
“ “	GOULD.
<i>Motacilla luscinia major</i> , var.,	GMELIN; Syst. 1788.
<i>Sylvia philomela</i> ,	BECHSTEIN, 1810. BREE; 1st. Ed.
“ “	TEMMINCK; Manual, 1820.
“ “	SCHINZ; Europ. Fauna, 1840.
<i>Lusciola philomela</i> ,	KEYSERLING AND BLASIUS. SCHLEGEL.
<i>Philomela aedon</i> ,	SALVADORI; Fauna d'Italia.
<i>Bec-fin</i> or <i>Rossignol philomele</i> ,	
or <i>Grand Rossignol</i> ,	OF THE FRENCH.
<i>Sprosser Nachtigall</i> ,	OF THE GERMANS.
<i>Rossignolo Forestiero</i> ,	OF SAVI.
<i>Thrush Nightingale</i> ,	OF AUTHORS.

Specific Characters.—Plumage above of a sombre brown. The first primary nearly obsolete, the second nearly as long as the third, and longer than the fourth. Length of male and female seven inches; from carpus to tip three inches and a half; tail from vent three inches; beak from gape seven tenths of an inch.

THE Eastern Nightingale is an inhabitant of the eastern parts of Europe. It is found in the south of Sweden—in Pomerania and Finland, in the south of Germany and Switzerland, Poland, Hungary, and Dalmatia. According to Temminck it is also found in Spain, but this is doubted by Count Mühle. It ranges south as far as the Volga, the Caucasus, Egypt, and Persia. It is rare in France, though M. Gerbe records the appearance of two specimens in the neighbourhood of Paris, in September, 1847. It does not occur in Holland.

Count Mühle informs us that it appears later than the Nightingale, but that it chooses the same localities, preferring, however, the neighbourhood of water and marshes. It likes to select its dwelling in the deep-lying thickets among the cultivated islands on the large rivers. In Germany it especially frequents the shores of the Don, Oder, Elbe, and their tributaries, but is rarely found on the Rhine.

Of its appearance in Italy, Salvadori (*Fauna D'Italia-ucelli*, p. 97,) remarks, "This species differs from the Common Nightingale by its general tints being more obscure, and by the colour of the chest being deeper.

In nearly all the Venetian Catalogues this species is registered as accidental, while Durazzo affirms that it is among the birds of Liguria; he at the same time doubts whether it has not been wrongly annexed to the Italian list, since the young of the Common Nightingale could easily be mistaken for individuals of this species. Perini announces it upon the faith of bird-fanciers; but De Betta seems inclined to doubt its appearance in the Veronese territory. Cara announces it among the birds of Sardinia, but I believe wrongly, and in fact Mr. A. Brook assured me that an individual received from Cara as belonging to this species was only the Common Nightingale."

In its habits the Eastern Nightingale appears more impetuous and not so graceful as its congener; its song is deeper and louder, and by some not thought so pleasing. It builds generally on stumps of trees. It lays five or six eggs, which, as will be seen by the figure, are very similar to those of our well-known species. Count Mühle says the egg is generally darkly spotted, which is not however mentioned by Temminck, and denied by Degland. All the specimens sent me by Moeschler and others are deep olive, like that figured; one lighter in colour, but none of them with any spots.

The plumage is so like that of the Common Nightingale, that it is not necessary to give any lengthened detail. The male and female have the upper parts of a dull grey brown; clear grey, tinted with darker on the chest; tail less brightly marked with russet than in the

Common Nightingale; throat white, surrounded by dark grey; feet brown.

In the young before the first moult the upper parts are bright clear russet brown; the head, scapularies, and wing coverts thickly mottled with light chesnut. All the under parts mottled with dark grey and dirty white, with a shade of yellow; tail rich chesnut brown; feet and legs light brown; beak rather darker.

The figure is from an adult male sent to me by M. Verreaux. It has also been figured by Gould.

The figure of the egg is from a series of four in my own collection. It was taken in Prussia, and sent to me by Herr Moeschler.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus AEDON. (*Boie.*)

Generic Characters.—Bill long and straight, with the culmen curved and much compressed at the tip, hardly notched; nostrils supernal, small, and oval; the gape without bristles. Wings with the first quill short, the second nearly as long as the third and fourth, which are longest. Tail long and rounded. Tarsi long, with broad scales in front. Toes short, the inner nearly as long as the outer, which are partly united to the middle toe at their base; claws small.

LESSER RUFOUS WARBLER.

*Aedon familiaris.**Sylvia familiaris,*

MENETRIES; Cat., p. 32, No. 60.

Aedon familiaris,

GRAY; Hand-list, No. 2980.

“ *galactodes*, var. β .,

BLASIUS.

“ *minor*,

CABANIS.

Salicaria galactodes,

MÜHLE, p. 66.

Specific Characters.—Head and upper parts, except the tail coverts, darker than in *galactodes*. Upper tail coverts rufous. Upper tail feathers brown instead of rufous. Lateral tail feathers with a pure white tip, about half the size of that in *galactodes*, and succeeded by a deep brown double crescentic patch, rather more or less than the white tip, and extending along the proximal end of the outer web of the feather; rest of tail feathers with the white tip less and the dark band larger than in *galactodes*. Wing extending to half the length of the tail. Comparative measurements with its congener:—*A. familiaris*, length five inches and eight tenths, wing three inches and two tenths, tail two inches and nine tenths, beak eight tenths, tarsus one inch. *A. galactodes*, length six inches and eight tenths, wing three inches and three tenths, tail three inches and a half, beak one inch, tarsus one inch.



THIS bird is considered by Canon Tristram to be a distinct species, and I have given above the characteristic points in which it differs from the Rufous Sedge Warbler of our British lists. They are, however, very closely allied, and are treated as varieties of the same bird by Blasius and Cabanis. *Aedon galactodes* is, however, a much larger bird, and bears the same relation to *A. familiaris* that the Eastern Nightingale does to our well-known bird; and assuredly if these birds, and many others, such as the large Wren of the Faroes and our well-known bird, deserve specific distinction, such a rank must be accorded to the subject of this notice. My own opinion is, that these birds, differing as they do merely in size or some shade of colouring, should be considered and strictly defined as separate races, the term species being especially reserved for those birds which are essentially different in structure, permanent plumage, and habits.

The points of difference are, however, well pointed out by Schlegel and Canon Tristram. The former, "Revue des Oiseaux d'Europe," p. 59, says:—"This bird, *S. familiaris*, although nearly related to *S. galactodes*, varies from it constantly. I have examined several individuals killed in Greece and on the borders of the Kour.—It is distinguished from *galactodes* by the following characters. The beak is more strongly compressed at the anterior half; the plumage of the upper part is of a brown dirty grey, only shaded with ferruginous brown on the upper tail coverts. The black spots on the tail are larger, and they form a wide black band, instead of being orbicular and isolated as in *S. galactodes*. The first quill feather of the latter passes the long wing coverts by five lines; while those of *S. familiaris* only pass these coverts by one line. The second quill in *S. galactodes* is shorter than the fifth, while they are of equal length in *S. familiaris*. This is undoubtedly the species indicated by Count de Mühle, p. 66, under the name of *S. galactodes*."

In the "Ibis" for 1870, p. 496, Canon Tristram remarks:—"Not only is it impossible to overlook the difference in size, (between *Aedon galactodes* and *A. familiaris*), even if we could get over the grey back and still darker head of the latter, while the former is unicolorous with the back; but the white at the extremity of the tail feathers is much narrower in *A. familiaris*, while the black bar behind the white is double the width of that of *A. galactodes*."

The habitat of *S. familiaris* is generally considered to be Greece, but it also occurs in India, in both which localities *S. galactodes* also occurs. The latter occurs in Palestine and Asia Minor, while Professor Newton (Yarrell, fourth edition, p. 357) remarks:—"A. familiaris,

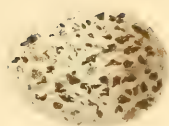
originally described from Caucasia, is probably that found in Southern Russia and Persia."

Von Heuglin ("Ibis," 1869, p. 84) says,—“I am unable to detect any specific distinction between *Aedon galactodes*, *A. familiaris*, and *A. minor*. Brehm says he observed *A. minor* on the coast of Abyssinia. The specimens collected by me near Masana, and on the Adail coast, are indeed perceptibly smaller than Egyptian examples; the other characters again suit better with *A. familiaris*.”

The so-called species, *A. minor*, is clearly referable to *A. familiaris*, and Heuglin says that the difference in the primaries, upon which Cabanis founded the species, does not exist.

The habits of *A. familiaris* are very similar to those of *A. galactodes*. It is uncertain which bird Heuglin was describing when he wrote as follows under the head of *A. galactodes* (op. cit.) “It lives in gardens, reed-thickets, cotton-fields, mimosa-woods, hedges and ditches, and usually shows less preference than the Nightingale for very shady and dense underwood; it also differs from the Nightingale in its song, call-note, and general behaviour. It pleases by its rather shy and yet lively nature, which somewhat reminds one of that of a Thrush. It often flutters quickly from twig to twig up to the very top of a tree, constantly moving, spreading, and closing its tail; soon it is seen running about briskly on the bare ground, or under the bushes and dry grass, hunting for worms and caterpillars; suddenly it emits a Thrush-like cry of fear, and flies noisily into the bushes. The birds of each pair keep together; the breeding begins as early as the end of April. As to its nesting-place the bird is not particular; and we found the nest in pomegranate, cotton, and tamarisk bushes, upon low mimosa trees, half concealed in grass, and in thin hedges, in gardens, and in the immediate vicinity of buildings and the busy noise of men, as well as in deserted solitary places or in quiet mimosa groves. It resembles that of the Blackcap, consists of fine grasses, rootlets, horse-hair, wool, and so forth; occasionally, but rarely, small twigs are interwoven in it. The structure is slight, and not very thick or artificial. The bird does not appear to lay more than four eggs; and I believe it usually builds twice, even when the first is not disturbed. In colouration the eggs have nothing in common with those of the Nightingale; they rather resemble those of certain Reed Warblers and of the Wagtails. The young, as regards colouration, are scarcely different from the adults. The sides of the breast are shaded with rusty reddish and indistinctly spotted.”

I have four eggs sent from South Russia by Her Glitsch, and



.. LOSSEN AV. 170 "WABELEN"

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through Von Heuglin. They are, however, essentially different from a series (six) I have of this bird taken by Dr. Krüper in Greece, and one sent me by Mr. Howard Saunders, taken in Spain. They are readily picked out from these; they are smaller, lighter in colour, and less thickly marked with green.

I figure an egg of *A. familiaris* from Canon Tristram, and a bird also from his collection.

It has been figured by Mr. Dresser in his B. of E.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus RUTICILLA. (*Brehm.*)

Generic Characters.—Bill slender, compressed towards the point, slightly deflected and rudimentarily emarginated. Nostrils basal, supernal, and nearly round. Wings moderate in size; first primary short; second equal to sixth; third, fourth, and fifth nearly equal, and one of the longest. Legs slender; tarsus longer than middle toe, and covered in front by a single scale; outer toe slightly longer than the inner.

GULDENSTADT'S REDSTART.

Ruticilla erythrogastra.

Sylvia erythrogastra,
Motacilla erythrogastra,

MÜHLE; Monog. der Europ. Sylvien.
 GULDENSTADT; Nov. Comment.,

Petr. 19, 1775, p. 469.

“ *aurorea* var. *ceraunia*,

PALLAS; Zoog., 1, p. 478.

Lusciola erythrogastra,

SCHLEGEL.

Rouge-queue de Gùldenstädt,

OF THE FRENCH.

Gùldenstädt's Rothschnwänzchen,

OF THE GERMANS.

Specific Characters.—The tail unicolorous rust red, except the two middle feathers, which are brownish red; a white mirror from the third to the tenth primary. Length from the tip of the beak to the end of the tail seven inches. Length of wings four inches one line and a half, of tarsi one inch two lines, of middle toe eight lines, of hind toe five lines.

Ruticilla erythrogastra is an inhabitant of the Caucasus during the summer, migrating about the end of October to a warmer climate. It was first described by Gùldenstädt in 1775, and was subsequently confounded with the *Motacilla aurorea* of Pallas, which is not, however, a European species, and is distinguished from it by the following



GULDENSTADT'S REDSTART

characters, as given by Schlegel:—First, the two middle feathers in the tail of *Aurorea* are black and not brown red. Second, the white mirror of the wings occupies the secondary quills to the eighteenth. Third, *Aurorea* is altogether smaller, the total length being six inches; the wings three inches one line; tail two inches eight lines; tarsi eleven lines; middle toe six lines; and the hinder toe three lines.

In India, according to Jerdon, this bird is “found in Bootan, Nepal, Kumaon, and Cashmere, chiefly in the higher regions of the Himalayas, rarely lower than ten thousand feet. It is found in summer in the Caucasian hills, frequenting the gravelly hollows of torrents, and breeding in bushes. One pair was seen by Mr. Stewart near Landoun, by the side of a stream, and it is said to frequent mountain streams only like *Chæmorornis leucocephala*.”—Birds of India, vol. ii., pl. 139.

Mr. Stewart, who is now stationed at Colchester, as Deputy Surgeon General and P. M. O. of the Eastern District, informs me that he “procured the two specimens mentioned above by Jerdon, in January, 1852, on the banks of a rivulet at Landoun, N.W. Himalayas, at an elevation of seven thousand feet. There was snow on the ground, and I never met with the species again, as they were evidently driven down by the severe weather from the higher mountain ranges. One specimen I gave to Mr. Blyth for the Asiatic Society’s Museum at Calcutta, and it is mentioned in the Society’s Journal for 1854. I shot the pair on succeeding days, and at first took them for *R. leucocephala*, which they closely resemble in habits. When they flew, however, showing the conspicuous white bar on the wing, they were to me evidently a new species.”

According to Gûldenstädt the manners and habits of this Warbler are similar to the rest of the family, approaching nearest to those of the Common Redstart. It lives on the shores of rivers, and is not a shy bird. It feeds on insects, and berries of the *Hippophæ rhamnoides*, in which also it builds its nest with grass. Nothing seems to be known about its eggs.

The figure which I have given of this bird is from Count Mühle’s monograph, and is a copy of the specimen in the Leuchtenbergstein collection. The following is also Count Mühle’s description:—“The old male in the spring has a very pretty and well-pencilled plumage. The whole surface of the head to the nape of the neck is of a brilliant satin white; the mantle, wings, flanks, cheeks, throat, and upper part of the chest, deep velvet black; the whole under part of the body, under wing coverts, rump, and tail, a lively fox red; on the deep black wings, and where the feathers are almost imperceptibly edged with a greyish tint, there is a great white mirror-

like spot extending from the third to the tenth feathers. The secondaries have in the middle of the inner colours a white, though not an equally conspicuous spot. The second primary is like the seventh, the third like the fifth. Beak black, with stiff black hairs round the angle of the mouth; throat yellow; iris brown; the tolerably long feet are black. After the autumn moult the plumage is much plainer.

The female has the colours of the under wing coverts and tail like the male, but paler; the whole body is brownish ash grey; on the under part of the body and about the sides lighter; under tail feathers rusty.

The unknown young birds we must suppose to be similar to other "Rothlings," clear spotted and streaked.

Figured by Heinrich Graf Von der Mühle, in his "Monog. der Europ. Sylvien."



MOUSSIER'S REDSTART.

INSECTIVORÆ.
 Family SYLVIIDÆ.
 Genus RUTICILLA.

MOUSSIER'S REDSTART.

Ruticilla Moussieri.

<i>Ruticilla Moussieri,</i>	OLPH. GALLIARD; Compt. Rend., 37, p. 8.
“ “	TRISTRAM; Ibis, 1860, with plate.
<i>Erithacus Moussieri,</i>	OLPH. GALLIARD; Nat. Hist. Lyons, 4, p. 11.
<i>Pratincola Moussieri,</i>	IDEM; Baldamus' Journ. f. Orn., 1853.
<i>Zinzukh,</i>	OF THE ARABS.

Specific Characters.—Male. Head and back black, with a broad line of white passing above the eye, and terminating in a broader rounded patch on the nape; also a quadrangular patch of pure white covering the upper part of the black brown primaries; under parts rich dark rufous. Length four inches and five eighths. Female: rather less than the male, having the upper parts greyish brown; under parts grey tinged with orange. Tail as in the male, orange red, with the central feathers dark brown.

I INTRODUCE this beautiful and interesting bird into the European list, upon the strength of the following communication by Colonel Irby to the “Ibis” of January, 1873, p. 97:—

“*Ruticilla Moussieri*, Olph. Gall.—I saw a male of this species close to Tarifa, in October, by the side of the road. Unluckily I was riding along without a gun some way in advance of my baggage, so could not secure it. Of course I do not consider that *seeing* a bird is sufficient evidence to include it in a list, and should have left it out; but as since at Tangier, on the 14th. March, 1872, I obtained a fine adult male, killed close to the shore, evidently on passage, (*Saxicola ænanthe* and *S. aurita* were then passing in some

numbers,) there is little doubt that this bird would also have crossed to the Spanish side of the straits, and that it is, though rarely, found in South Andalusia. The late M. Favier, whose M.S. notes, I am happy to say, I have succeeded in purchasing, mentions one killed near Tangier in 1848. He calls it '*erythrogastra*,' but his description and measurements sufficiently identify it as a male *R. Moussieri*. He adds that they migrate to Europe, and return in October, but are excessively rare."

Hitherto considered as exclusively limited to North-west Africa, this charming bird is a welcome addition to the European fauna as limited in this work. Its "place in nature" is also very interesting, as it forms a transitional link between the Redstarts and the Chats, partaking more of one or the other according to the peculiar opinions of observers.

From no pen have we had a more clear and graphic description of this bird in its native haunts than from that of Canon Tristram, and as I have endeavoured in this work always to give the *ipsissima verba* of writers, rather than condense or summarise without acknowledgement, I shall quote the distinguished Canon's own words, from the "Ibis" of 1860, p. 364:—

"Beyond the Hammam Weled Zeid, which we did not reach till nearly noon, was an Arab tribe where Sala had acquaintance, from whom he was promised eggs and barley cake if I could wait for an hour. I sat down on the bank side, letting my horse graze under the trees, and seldom have I enjoyed a more lovely view. The scenery was not grand, but exquisitely rich. Below me the streaming little torrent of warm water was dashing into the deep glen. The sides of it were clad with pear-trees, figs, wild prunes, and hawthorn, all in full blossom. The sun was bright, the sky cloudless, and of the deepest blue; the air charged with perfume of jasmine, rose, hawthorn, and scented genista. There was nothing in the scenery to astonish, but all was soft, luxuriant, and English. Dreaming of home, I was roused from my reverie by a familiar note, the quickly repeated chirrup of Moussier's Redstart, *Ruticilla Moussieri*, so well described by its native name of 'Zinzukh.' I soon descried my little friend perched like a Stonechat upon the topmost quivering bough of a small Numidian broom, as, regardless of my presence, he turned himself round and round on his perch and performed various somersaults to exhibit his rich and softly-blended plumage, continuing the while his cheerful monotonous note. If ever Libya were in search of an ornithological emblem, Moussier's Redstart should be its emblazon. There is no other bird so truly and strictly

"*glebæ adstricta*" as this. The Lammergeyer and the Vulture are at home, but their presence recalls visions of the Pyrenees or the Balkan. Every Warbler on our lists may be found in those thickets, but many of them were born and educated in Europe, and like the Roman of old, the Spaniard of yesterday, and the Frenchman of to-day, they may return to their northern resorts. The Bustard and the Sand Grouse abound in these arid plains, but they are familiar forms to the Arab invaders of the East. If the Ostrich ventures to his northernmost limits, he is little better than an invader, like his brother Touareg, and is chased as such with as little compunction."

"But Moussier is an indisputable 'indigène.' While one race of man after another has rushed like a flood over North Africa, and left the faint traces of each invasion in a few stranded ruins on the shores, or in the tide-marks of some wrecks of humanity on the mountain sides; long before the first Phœnician galley had entered the Bay of Tunis, and treated with the Numidian king; before either Roman, Vandal, or Saracen had disturbed his retreat, Moussier was here, never disturbed by a restless taste for emigration, nor an appetite for the slopes of the Alps or Apennines. I love to watch him as a gentle and genuine Numidian, the one local and peculiar bird: Mauritania, now the province of Algeria, he avoids. The only time I ever found him beyond the frontier of Constantine was once in the forest of Boghar, and there he was so rare, that of several French local naturalists none could tell me what it was. Towards the east he gradually approaches the shore, not crossing the watershed in Constantine, but at Tunis resorting commonly to the ruins of Utica, near the coast, and thence extending itself as far as the oases of Djereed, Nefta, and Souf, while in all the more southern oases of the M'zab and Waregla he abounds."

"Still I hardly expected him at Weled Zeid, and not having up to this time met with the nest, I kept careful watch, feeling sure from the actions of the bird that his mate was not far distant. Perhaps it is owing to her modest and inconspicuous plumage that the female is but rarely observed, so rarely, that I am sure we noted at least a dozen males for every hen bird we saw. With her brown back and russet red breast, she is detected with difficulty in the bushes, and, unlike her consort, rarely exhibits herself on the top of a bush or edge of a stone, remaining generally among the roots of the thickets. Though in distribution of plumage Moussier's Warbler shows a strong affinity to the Redstarts, yet in its habits and manner of perching it is a true Furzechat, and I fully agree with Mr. Salvin's opinion ('Ibis,' i., 307,) that it is more of a Chat than a Redstart."

"After a long search I discovered the nest with a single egg, artfully concealed near the base of a small thuja bush. The nest is very warm, rather loosely built, with a slight skeleton of very small twigs, and a thick lining of grass, wool, cows'-hair, camels'-hair, and many feathers, chiefly Hoopoes'; within this is a very neatly laid lining of fine hair. The nest is not so compact as those of the Whin and Stonechats, but very like that of the Redstart. But the eggs I know not how to describe. They are white with the faintest tinge of bluish green, unlike any other I can recall, but approaching in shade some of the more delicate hues which are found in the eggs of some of the Egrets, and rendering the bird a beautiful link between the Wheatear and Tythy's Redstart. It does not appear that this bird is anywhere a migrant, even partially, nor could I ascertain that in any locality it is more plentiful at one season than another. I have seen skins obtained by Mr. Fraser near Sousa some years before it was described by Leon Olph-Galliard; but this is not the only instance in which a discoverer has been anticipated, and lost his honours by his own delays."

The above skins of Mr. Fraser's were obtained in 1847, and are now in the British Museum. The editor of the "*Ibis*," Dr. Sclater, adds that "During a visit to Tunis in the month of February, 1859, we found Moussier's Redstart not uncommon in the vicinity of Oudenah—a day's journey south of Tunis, and between the latter place and Zaghouan it was often seen on the road side, perched on the ground, or on a small bush."

This bird has been fortunate in its biographers, for ten years previous to Canon Tristram's paper ("*Ibis*," 1859, p. 307,) we find Mr. Salvin writing thus:—"This species, which is peculiar to North Africa, is perhaps one of the most interesting in the Regency of Tunis and Eastern Algeria, where I had the pleasure of observing it. Its favourite resorts are the ruins of old cities which lie scattered in all directions throughout this district, and the loose rocky ground which skirts the plains at the foot of the surrounding hills. When visiting such spots, the bright plumage of the male, as he glides from stone to stone, is one of the first objects that attract attention. The note uttered by the male during the breeding season is peculiar; and unlike that of any of its congeners, it is monotonous, but not pleasing. This bird seems intermediate between the Stonechats and Redstarts; but I am inclined to consider that it is more closely allied to the former than to the latter; the character of the plumage of the male would lead one to this supposition, and its habits, actions, and nest tend rather to confirm the idea. The eggs,

which are white with the faintest tinge of greenish blue, only indicate its connexion with the whole group, including the Wheatears; and as in the case of the eggs of *Saxicola ænanthe*, I have no doubt that spotted varieties occur. On observing the eggs of the *Saxicolæ* and *Ruticillæ* mentioned in this paper, an intimate relationship can be traced between the whole. In the first instance, take the richly-coloured and highly marked eggs of *S. leucura*, *S. aurita*, and *S. stapazina*, all of which are greenish blue, with decided spots of red brown; next to them I would place those of *S. rubretra*, which are similarly marked, but not so deeply; then those of *S. rubicola*, which are also spotted, but more indistinctly; next follow the pale delicately-coloured eggs of *S. ænanthe*, in which a tendency to spotted variegation is not unfrequently noticeable; then come the eggs of *R. phænicura*, among which spotted varieties occur, but not so commonly as in the preceding. Those of *R. Moussieri*, with their just traceable colouring, follow next in succession; and lastly those of *R. tithys*, which, though white, and differing widely from the well-marked eggs of *S. leucura*, can still be connected with the series through the medium of *S. ænanthe* and *R. Moussieri*."

Mr. J. H. Gurney throws still further light upon its habits in his paper in the "Ibis" for 1871, "On the Ornithology of Algeria." Mr. Gurney met with it at Miliana, which is farther north than Canon Tristram has assigned its range in Western Algeria. At Guelt el Stel it became plentiful. "*R. Moussieri*," continues Mr. Gurney, "is a shorter, stouter bird than *R. phænicura*, hence it cannot hop or fly near so quickly except when pursued. I think its flight is even slower than a Stonechat's, and it seldom flies far without perching on a stone, clod, or small bush, where it moves the body up and down like *R. phænicura*, and like it sometimes jerks the tail, but not so rapidly. When feeding it digs its bill into the ground very frequently, and looks round after each dig with the pert air of a Robin. They pair in March; and the males look very pretty as they chase the females among the bushes and rocks. As the bird occupies such a dubious place between the Chats and Redstarts, I was anxious to see which of its actions corresponded with the former and which with the latter. They were quite tame at Guelt el Stel, and I had abundant opportunities of watching them. At that time the black of the back was still edged with brown. Bill black; mouth yellow; eye dark brown; legs, feet, and claws black; soles of the feet rather lighter. Length of tongue three eighths of an inch, arrow-shaped, with the tip slit. Food small beetles and small caterpillars."

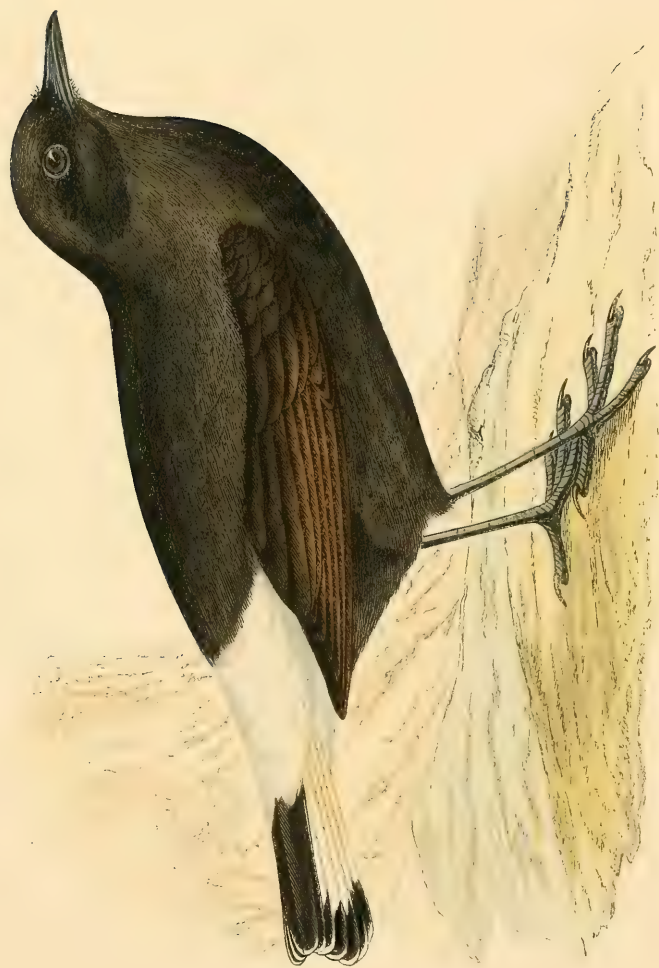
The male Moussier's Redstart has the upper parts black mingled

with light rufous lines, which give the black a greyish appearance. Primaries and secondaries dark brown; a streak over and behind the eye; a large spot on each shoulder, and the base of the wing feathers, forming a large "speculum," pure white. Rump rich chesnut; upper tail feathers dark brown like the wings: all the rest rich chesnut. All the under parts, including the axillæ, rich chesnut; the lower parts of the abdomen rather lighter, from the mixture of some yellow feathers. Under wing rather lighter brown than the upper. Length four inches and five eighths; tarsus seven eighths of an inch; beak, from gape, nine sixteenths of an inch.

The female, which is much more like the Redstarts than the male, has the upper parts of a dull olive colour, inclining to grey. The primaries and secondaries light brown, the latter being edged with pale rufous. Upper tail feathers dark chesnut, the rest light. Rump chesnut, with lighter endings to the feathers. The lower parts like the male, but much lighter. There is little or no difference in size sexually.

My figures and the above descriptions, and the egg, are from specimens kindly sent me by the Rev. Canon Tristram.

Ruticilla Carii, (Gerbe,) is now considered by most naturalists, (even, I believe, by Gerbe himself,) to be only the immature form of *R. tithys*. It will therefore be dealt with in the British works, and the name, as a species, must sink. We are much indebted to Mr. Gatcombe for his paper on this subject. The plumages of the class are an interesting and instructive study; and though I omit the Grey Redstart from this work, I hope to see it figured in other works upon British Birds.



BLACK 'WHEATEAR

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SAXICOLA. (*Bechstein.*)

Generic Characters.—Beak slender, straight, and rather broader than deep at the base, where it is surrounded by a few hairs; upper mandible slightly obtuse, sloped and curved only at the point; nostrils oval, half closed by a membrane; tarsus long, slender, and compressed; outer toe connected by a membrane to the middle. Wings of medium length, reaching to the middle of the tail when closed; first quill about half as long as the second, the second shorter than the third or fourth, which are the longest; the greater wing coverts much shorter than the quills. Tail medium length, slightly rounded or square, consists of twelve feathers.

BLACK WHEATEAR.

Saxicola leucura.

<i>Turdus leucurus,</i>	GMELIN; Syst., 820, 1788.
“ “	LATHAM; Ind., 1796.
<i>Ænanthe leucura,</i>	VIEILLLOT; Dict. et Faun. Fr., 1818.
<i>Saxicola cacchinans,</i>	TEMMINCK; Manual, 1820. SCHINZ.
“ “	SCHLEGEL.
“ <i>leucura,</i>	KEYSERLING AND BLASIUS; Die Wirbelt, 1840. MÜHLE.
“ <i>leucuroides,</i>	BROOKS; Ibis, 1869.
<i>Vittiflora leucura,</i>	BONAPARTE, 1838.
<i>Dromolæa leucura,</i>	CABANIS. BONAPARTE. TRISTRAM; Ibis.
“ “	LOCHE.
<i>Traquet Rieur,</i>	OF THE FRENCH.
<i>Schwarzer Steinschmätzer,</i>	OF MEYER.
<i>Culbianco Abbrunato,</i>	OF SAVI AND MARMORA.

Specific Characters.—Plumage black, or blackish, with the upper and lower tail coverts white; tail white, with half of the two middle quills and the posterior fourth of the laterals black. Length of male sent me by the Rev. H. B. Tristram, seven inches; female six inches and a quarter.

CABANIS has separated this bird, with some others, from the genus *Saxicola*, and included it under that of *Dromolœa*, in consequence of its habits being different from those of the typical Wheatears. He has been followed by Bonaparte and others, who, by adopting, have acquiesced in the propriety of the arrangement. I have not space here to do more than account for my own reasons for preferring the retention of this species in the genus *Saxicola*. I do not for a moment question the grounds upon which this separation is made, as being contrary to the scientific rules observed by modern ornithological classifiers; but I doubt very much whether any greater degree of precision in definition is obtained, while the evil of a multiplicity of generic names, and a consequent complexity of ornithology as a science is effected. I therefore prefer the retention of the original generic term of Bechstein, though I admit that it does not give a general idea of the structure and habits of the whole class, and therefore was perhaps originally ill-chosen. But just as *Sylviidæ* is sufficient for all useful purpose as indicating a great group of birds, all of which have not sylvan habits, so I think we may accept *Saxicola* as a good generic term, though all the species do not affect rocks and stones.

No better illustration could be given of the truth of these remarks than the fact of a good and practical ornithologist like the Rev. Canon Tristram, who adopts Cabanis's division of the genus, having the greatest possible difficulty in deciding on which side to place the Bushchat, (*Saxicola philothamna*), which he discovered in Northern Africa, and which he has described and figured in the "Ibis," vol. i., p. 299.

The Black Wheatear is an inhabitant of the warm and southern parts of Europe especially, being found in Spain, Sardinia, Sicily, Corsica, South of France, the Pyrenees, the Hautes and Basse Alps, Apennines, (accidentally,) the neighbourhood of Gibraltar, and Greece. It is rare in Italy. It is included in Captain Loche's list of Algerian birds. It does not appear in Mr. Carte's interesting list of the birds of the Crimea, kindly sent to me by Dr. Leith Adams.

Mr. Deputy Surgeon-General Stewart writes to me of this bird:—"I have compared European specimens with the so-called *S. leucuroides* of Jerdon, and can find no specific distinction warranting a separation. It is a common cold weather bird in the upper Provinces of India and the Punjab. I may take the opportunity of saying also, that I think there is no valid reason for making two species of *S. Deserti* and *S. stapazina*. They run into one another unmis-

takeably, and, like the last, are common throughout upper India and Scinde in cold weather."

Mr. O. Salvin, ("Five Months' Birds'-nesting in the Eastern Atlas," "Ibis," 1859,) writes:—"More abundant about the Djendeli district than elsewhere. It appears to be an earlier breeder than other *Saxicolæ*, as young were found at the end of May in an advanced stage." Mr. A. B. Brooke says ("Ibis," 1873) that this bird is a rare visitor to Sardinia.

Mr. W. E. Brooke, in a letter dated Etawah, January, 1869, and published in the "Ibis" for that year, says that my specific characters of this bird are exactly the same as those of *S. leucuroides* of India, and therefore suggests that this latter name should be suppressed. Upon such very good authority as that of Mr. Brooke and Mr. Stewart, I have added the name to the synonymes of *S. leucura*.

Of its occurrence in Italy, Salvadori ("Fauna Italica,") writes:—"This species is rather rare in Italy, and it is circumscribed and stationary in particular localities. Thus it is found in Liguria, upon the shores of the Levant, near Nice, near Palermo, in the southern parts of Sicily, and in Sardinia, especially near Cagliari. According to Temminck, it occurs also in Corsica, and it is said to occur accidentally in Venetia. It frequents rocky and dry places, flying from one rock to another. It nests here, between the stones of old ruins especially. The nest is made with twigs and roots. Eggs, from five to six, are of a blue colour, without spots, or with very small rosy spots near the larger end."

The Rev. H. B. Tristram's account of this bird, as observed by him in Northern Africa, is so interesting that I shall transcribe his notice of it from the "Ibis," vol. i., p. 296.

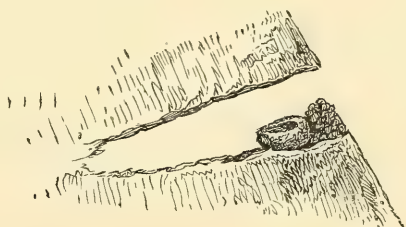
"The Chats are the tribe of all others the most universally distributed in the Desert, yet having specifically very narrow limits. They are, too, the only class of birds there, which have any distinctive or conspicuous colouring. The Larks, of various species, or the Sand Grouse may be on all sides, yet only a practised eye can detect a sign of life in the waste. But the lively Chat is seen afar; his clear bright colouring gleams in contrast with the universal brown around him. Conscious of his attractions he attempts no concealment, but relies for safety on his watchful eye and rapid movements, and, above all, on the snug retreat which he always has open before him—his hole in the rocks, or his burrow in the sand.

I think that those who are familiar with the habits of this class, will at once admit the propriety of Cabanis's separation of the genus *Dromolæa* from the old one of *Saxicola*. Strong as are the structural

affinities throughout the whole, the manners of the living birds are in marked contrast. Wherever there are savage ravines, bare cliffs, reflecting a burning glare on the hungry valley, rent chasms, fearful in the unspeakable stillness which pervades the transparent atmosphere around, gorges which strike the intruder with awe, as though life, vegetable or animal, had never dared to intrude there before,—even here may a pair of Rock Chats of some species or other be detected. If a snap shot has been successful, the victim generally contrives to escape into some deep fissure to die, and frequently it is impossible to recover the spoil.

D. leucura is found only in the north of the Desert. El' Aghouat may be considered its southern limit; and it alone of the class comes up to the foot of the Atlas, on the southern slopes of which it is tolerably abundant, from Morocco to Tunis, breeding among the rocks, building a compact nest of moss and hair, and laying ordinarily four eggs, somewhat larger than those of the Wheatear, of a rich deep greenish blue, covered towards the larger end with rust-red blotches and spots. Its song is monotonous, consisting of but three notes; but the call-note is clear, loud, and musical."

Mr. Savile Reid says of this bird at Gibraltar:—"1872. The Black Wheatear is not uncommon on the south and east sides of the rock,



but is seldom seen on the west side. A pair built their second nest, however, this summer in a hole in a retaining wall near Gardiner's Battery (on the west side.) The nest was artfully placed, as shown in the accompanying sketch. The loose stones lying in the hole were carefully arranged so as to conceal the nest from view. I did not see the eggs, for my presence made the cautious birds forsake the nest." "1873. The Black Wheatears stick to their favourite breeding grounds, and I know each pair and its district with exactitude. I think they are now (May 8th.) building their nests, and in some cases have eggs. The males sing a great deal on the wing, launching themselves out from a commanding pinnacle of rock, and floating with outspread wings and tail (generally downwards) to another con-

venient rock. The song is very sweet and wild, but rather monotonous after a time." Mr. Reid did not, unfortunately, get any eggs.

Mr. Arthur C. Stark, of Hillstead, near Torquay, was, however, more fortunate than Mr. Reid, having taken a nest of four eggs in Andalusia. Major Irby having informed him how acceptable a specimen would be to me, he most kindly sent me the egg which I have figured, and which he requested might be added to my collection. It is, as will be observed, the largest of the eggs of European *Saxicolidae*. The following is Mr. Stark's statement, which he kindly sent with the egg:—

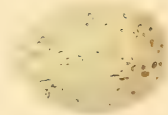
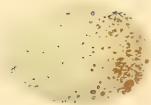
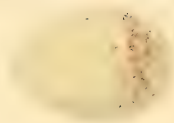
"Nest and four eggs of Black Chat, (*Saxicola leucura*), taken in the Sierra, near Casa Vieja, Andalusia, April 25th., 1874. In a range of sandstone rocks my attention was attracted by seeing something that looked like a nest, in a small hole about twenty feet up. On going to it, I found the hole was partially filled with small white stones; behind these stones was a Black Chat sitting on a nest. The bird slipped out before I could catch her, and I then saw that the nest contained four eggs. I then hid some seventy yards from the nest, and watched the bird (with telescope) until she returned to nest. As I was anxious to shoot the bird, I tried to make her leave the nest a second time, but she seemed determined not to move; shouting, throwing stones, and firing a gun off were tried in vain, and it was not until I sent a Spaniard above to lower a rope over the hole that the bird flew out. I fired and missed the bird as she left the nest. She flew a short distance, then returned almost immediately, and re-entered the nest. This time I had to climb up to the nest to get the bird out. She sat until I was close to the hole, then flew out and perched on a rock close by. I got down and followed her for nearly two hours, fired three times at her, but missed, owing to the provoking way in which she kept just out of gunshot. At last, as it was getting dark, I had to give up the chase, and taking the nest and eggs, returned to Casa Vieja. The eggs would have hatched in a couple of days. The nest is large, measuring, outside, six inches across and three inches in depth; inside, two inches and three quarters across by one inch and three quarters in depth. The outer part of the nest is rather loosely constructed of dry stalks of grass and small stems of various weeds, a few bits of furze, and a dry leaf; the inner nest and lining almost entirely of fine dry grass. In the lining is a large piece of the root of Palmetto, and a few large white downy feathers, (I think *Neophron's*), Irby says Griffon's.

"I noticed several Black Chats about this same range of rocks, but

never again saw them, though I explored a great portion of the mountains between Algesiras and Casa Vieja. On the rock at Gibraltar this bird is rather common."

Radde, in his "Reisen im Suden von Ost Siberien," remarks of this bird:—"It is very observable, that among the few species of this bird in Eastern Siberia, just those make their appearance which have a limited area in the south of Europe and in the North of Africa. Had we in *S. saltatrix* an additional member of the fauna of Eastern Siberia, which united it with that of the south of Europe, the species now to be considered might offer an interesting example of the appearance of a Chat in the central parts of Southern Siberia, which belongs exclusively to the coasts of Southern Europe and to those of Egypt and Arabia. For the existence of this species in the remaining parts of Siberia, we have until now, however, no authentic proof, and on this account it is very surprising to find them in the otherwise limited and barren wilderness of the Baikal mountain range. *Saxicola leucura* was found breeding here and there, mostly in company with the typical *S. rubicola*, in the clefts of granite rocks, which constitute the greater part of the shores of Lake Baikal.

"As in the old White-tailed Chats, so also the young of these, the tail, together with the upper and lower tail coverts, are snow white; a similar colouring also prevails at the root of the tail. Both the middle tail feathers take the white colour one third of the whole length, two thirds are black; in all the others only one fifth of every feather, from the point, is black, four fifths white. On the outer edge of the first and second tail feathers the black extends rather higher along towards the shaft. With the outermost border of the black colour, the white of the shaft also changes into black. In the plumage of the young, every tail feather has a moderately broad (three quarters of a line) reddish white edge to the tip, and a tender narrow hem of the same colour on the sides. Here and there are to be seen, on the end of the upper tail coverts, quite narrow blackish bands, which, in consequence of their slight extent, are scarcely made known. The whole of the head, the upper and under parts of the body, are a dull dark brownish grey, which colour becomes lighter on the belly, and turns into a dull yellowish white, with some blackish spots. The separate feathers of the head, neck, and back, and on the breast, have a somewhat lighter central space, but again darker blackish borders, so that here throughout a gloomy hue of faint greyish black prevails. The black wing feathers and their upper coverts are broadly edged with rusty red (as with the Common in the youthful plumage.) The under wing coverts are of an intense black, but they have now and



1. BLAC. WHEATEAR.

2. RUSSET WHEATEAR.

3. BLACK-EARED WHEATEAR.

then some small red (rusty) cross bands. Beak and feet horn-colour."

The adult male has all the upper parts, except the rump, and all the lower parts, except the greater part of the tail, sooty black. Wings hair brown. Rump, upper tail coverts, and three fourths of tail below, pure white; two middle tail feathers black, the rest white, broadly barred with dark brown at the ends. Sides and beak black; tarsi glossy black.

The female only differs from the male in being smaller, and having those parts which are black in the male, of a more uniform brown, like the wings, and it is darker on the back.

The young of the year, according to Degland, resemble the female, but the brown of the middle of the abdomen is shaded with red; the wing feathers slightly fringed with grey, the primaries being terminated by a grey border, and the tail feathers with white.

My figure of this bird is taken from a specimen kindly sent me by the Rev. Canon Tristram, obtained by him during his travels in Africa. The egg is in my own collection, and was sent to me, as stated above, by Mr. Stark.

It is also figured by Roux, Ornith. Prov., p. 197, (male;) Gould, B. of E., p. 88; Bouteil, Ornith. du Dauph., pl. 22, f. 1; Dresser, B. of E.

Mr. Dresser, following the suggestion of Captain Shelley ("Ibis," 1871, p. 53,) has united the two "Black Chats" known as *S. leucocephala* and *S. leucopygia* under the latter name, the former being merely the young. Whether this happy reunion of family interests will stand further inquiry or not remains to be seen. In habits the white-headed and white-rumped Chats are closely similar to those of the "Black Chats."

Lord Lilford ("Ibis," January, 1875,) mentions having seen *S. leucopygia* among Mr. Wright's birds at Malta, but as a rule it is not found within the geographical limits of Europe.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SAXICOLA. (*Bechstein.*)

RUSSET WHEATEAR.

Saxicola stapazina.

<i>Motacilla stapazina,</i>	LINNÆUS; Syst., 12th. Edit., vol. i., p. 332, 1760.
“ “	GMELIN, 1788.
<i>Vitiflora rufa,</i>	BRISSON; Orn., 1760.
“ <i>stapazina,</i>	BONAPARTE, 1838.
<i>Sylvia stapazina,</i>	LATHAM; Ind., 1760.
“ “	TEMMINCK; Man., 1st. Edit., 1815.
<i>Saxicola stapazina,</i>	TEMMINCK; Man., 2nd. Edit., vol. i., p. 239, 1820.
“ “	CUVIER. LESSON. SCHLEGEL.
“ “	KEYSERLING AND BLASIUS.
“ “	DEGLAND. SCHINZ.
<i>Ænanthe stapazina,</i>	VIEILLOT; Dict., 1818.
<i>Muscicapa melanoleuca,</i>	GULDENSTADT; Nov. Com. Petr., 19, p. 468.
<i>Saxicola rufa,</i>	DRESSER; Birds of Europe.
<i>Le cul Blanc-roux,</i>	BUFFON; Ois., vol. v., p. 246.
<i>Le Moteux Stapazin,</i>	VIEILLOT; Faun. Fran., p. 189.
<i>Traquet Stapazin,</i>	OF THE FRENCH.
<i>Schwärzkehliger Steinschmätzer,</i>	OF THE GERMANS.
<i>Monachella con la Gola Nera,</i>	OF SAVI.

Specific Characters.—Throat more or less black; first primary shorter than the third; the two middle tail quills black, with the base white; the others white, with their extremities black. Length five inches seven lines to five inches nine lines. Length of specimen sent to me by Mr. Tristram, five inches and three quarters.



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THE Russet Wheatear is principally found among the rocky mountains of the south of Europe; it is not common in the southern parts of Italy, more so in Dalmatia, in the Archipelago, and the south of France. It is also common on the rocky shores of the Mediterranean, but, according to Temminck, it is very rare in the north of Italy; seldom found in the Pyrenees, and never in the centre of Europe. It is noticed by the Hon. T. L. Powys, among the birds observed by him in the Ionian Islands. It is common at Gibraltar. It is mentioned by Mr. Taylor among the birds found by him on the Nile; by the Rev. H. B. Tristram in Northern Africa; by Mr. Salvin in the Eastern Atlas; by Dr. Heuglin among the birds of the Red Sea, "Ibis," vol. i.; and by Mr. Carte among the birds of passage in the southern parts of the Crimea. It is also stated by Captain Loche to be found in the three provinces of Algeria. It does not occur in Mr. Hodgson's "Catalogue of Indian Birds," though the family is well represented. Neither is it included in Dr. Adams's "Birds of Cashmere." In North America the *Saxicolinæ* are represented by the genus *Sialia* of Swainson, containing, however, only three species.

The habits of the Russet Wheatear are very similar to those of the other members of the family, between some of which there is a very strong affinity—quite sufficient, according to Mr. Tristram's observations, to justify the inference that they may be considered as races or permanent varieties of the same species. Between *S. stapa-zina* and *S. homochroa*, says this gentleman, widely as they appear separated, a well-chosen series of the numerous African species of the class, "will exhibit a range of transitions so imperceptible, that it will be found very difficult without careful comparison to draw a line between one species and another."—"Ibis," vol. i., p. 432.

This bird, says Mr. Salvin, at page 307 of the same work, is found in similar situations, and appears equally distributed with *S. aurita*, whose favourite resort is among stony ground at the foot of hills or old ruins. "No difference is noticeable between the eggs of these species."

In general distribution of colour Mr. Tristram says there is much resemblance to the Desert Chat, but the bill and tarsi are one-third less in length; the black of the throat does not extend so far, and in the latter, the head and back are of a more sombre isabel colour. Mr. Tristram says "that without exception the upper plumage of every bird, whether Lark, Chat, Sylvian, or Sand Grouse, and also the fur of all the small mammals, and the skins of all the snakes

and lizards, are of one uniform isabelline or sand-colour.”—"Ibis," vol. i., p. 430.

This beautiful adaptation of colour, so important as a protection against their enemies, is, in my opinion, produced in these animals principally by means of the food. When colour is owing to the deposit of pigment, it is clear that this pigment must exist in the organic productions by which the animals are surrounded, *for it produces the same colour in them*. In the humming bird, which feeds on the nectar of flowers, which being hidden requires no colour-pigment, the hue of the plumage is owing to a peculiar sculpturing of the ultimate ramule of the colourless feather.

About March, says Count Mühle, after every fresh storm, bands of new arrivals of *S. stapazina* may be observed in Greece. They soon scatter themselves among the rocky hills, where they move about restlessly among *Emberiza cæsia*, *Surnia noctua*, and *Turdus cyanus*. They always seem angry without there being any cause of alarm, and are constantly snapping and pecking one another, although they live at peace with other birds.

They are very shy and circumspect, and build their nests in the holes of rocks, singly. The nest is made of the blades of grass and the down of grass flowers, and generally contains five eggs, sea-green, sprinkled sparingly with pale-coloured spots.

Salvadori ("Fauna d'Italia,") remarks that *Saxicola stapazina* arrives at the same time as the other species, and has the same habits, and is not common. I have observed it occasionally in the Campagna Romana in May. I have never seen it in the Marche. It certainly nests in Liguria, which it constructs on the ground, generally between stones. The eggs, in number from five to six, are of a sky blue green, with rusty spots more or less apparent.

Mr. Savile Reid, in his "Gibraltar Notes," remarks:—"May 25th., 1873. Explored the rocky ground at the foot of the 'Queen of Spain's Chair' for Wheatears. Saw nine or ten pairs of *S. stapazina*, which seems very common, and found one nest containing five eggs, in the bank of a small quarry-hole. The nest was loosely made, but admirably fitted into the niche; the groundwork was of dry plant stems and fibres, lined with fine roots and a few horse hairs. The eggs, four of which got broken unfortunately later in the day, were of a pale blue, speckled, chiefly at the larger end, with faint brown markings."

"June 14th., 1873. Another visit to the Queen's Chair for Wheatears. A nest of *S. stapazina*, in which I had previously left one egg, had been destroyed. I however found another nest of the same

bird containing four eggs, in a very artfully selected hole under a stone at the top of a quarry-hole bank. The bird seems to like an earthen floor and stone roof for its habitation, and chooses the site of its nest with great wisdom. Snakes infest these rocks at the foot of the 'Chair,' and must destroy numbers of the poor birds and their young. Manuel, our young friend, told me he once surprised a snake in the act of devouring some young Crested Larks. The common bright green lizard ('iguana') is also very plentiful in this neighbourhood, and they may be partial to sucking eggs. Their head is snake-like enough for such atrocities. Anyhow *stapazina* evidently thinks a perpendicular bank and an overhanging stone the best protection against intrusive reptiles, and it is no doubt quite right. It would have been difficult for a snake to have got at the nest of to-day."

Edwards, in 1743, figured this bird, but unfortunately he figured the female of the next bird, which Linnæus had previously designated *S. stapazina*. For this reason Mr. Dresser has thought fit to change the name of the present bird to *rufa*, after Brisson (1760), while he applies the name of *stapazina* to the bird hitherto described as *S. aurita*. I think this is a great mistake. The two birds are so closely allied that very few naturalists consider them as distinct species, but at all events they are known as *S. stapazina* with a black chin, and *S. aurita* with a white one, and they have been so understood since the time of Temminck. Why create confusion, by changing names so well understood, simply because Edwards, one hundred and thirty years ago, made a slight mistake? I shall continue the nomenclature in use for both birds, premising that any of my readers are at liberty to consider the two birds as one if they think fit. It is simply a question of individual opinion. I cannot agree either to recognize *Saxicola melanoleuca* of Guldenstadt, (*S. Hendersonii*, Hume,) as anything but an eastern form of *S. stapazina*. Mr. Dresser has given a drawing of the bird, but he has failed to make them two in his text.

The adult male in breeding plumage has the top of the head, nape, and upper part of the back, rich buff; lower part of the back white, mottled with black; rump, upper tail coverts, and three parts of the tail beneath, white; throat, and underneath eyes and ears, upper wing coverts, and two medium tail feathers, glossy black. Wings blackish brown; secondaries fringed with grey, and the primaries underneath blackish brown; chest, abdomen, flanks, and under tail coverts, light buff, more or less deep on the chest; forehead, and a line between the black of the throat and the neck, creamy white. Beak and feet, black; iris dark brown.

In autumn, according to Degland, the top of the head and neck, and upper part of back, are russet, shaded off into grey on the head; the chest is a brighter russet, passing into whitish on the abdomen; below the eyes, throat, and wings, black, with the feathers bordered more or less with russet, particularly the wing coverts; rump and tail as in breeding season, but with a slight border of greyish or russet at the extremity of the primaries.

The female in the breeding plumage has the head russet brown; nape and back dirty russet; throat blackish; abdomen, and a large band over the eye, whitish; scapularies black, terminated with russet; wings blackish brown, the quills bordered with russet; tail as in the male, but with the black more extended.

My figures of this bird and its egg are from specimens kindly sent to me by the Rev. Canon Tristram. All the six eggs in my collection are more or less pale green, spotted at the greater end with rufous.

Figured by Edwards, plate 31; Guldensadt, Nov. Comm., petr. xix., p. 468, tab. xv.; Naumann, taf. 90, figs. 1 and 2; Roux, Ornith. Prov., pl. 199, (male,) fig. 1, (female,) fig. 2; Bouteil, Ornith. du Dauph., pl. 22, fig. 2; Gould, B. of E., pl. 91; Dresser, B. of E.



BLACK-HEADED VIREO.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SAXICOLA. (*Bechstein.*)

BLACK-EARED WHEATEAR.

Saxicola aurita.

<i>Vitiflora rubescens,</i>	BRISSON; Orn., p. 457, 1760.
“ <i>aurita,</i>	BONAPARTE, 1838.
<i>Motacilla stapazina,</i> (var. β .)	GMELIN; Syst., vol. i., p. 966, 1788.
<i>Sylvia stapazina,</i> (var. β .)	LATHAM; Ind., p. 531, 1790.
<i>Saxicola aurita,</i>	TEMMINCK; Man., 2nd. Edit., vol. i., p. 241, 1820.
“ “	SCHINZ, 1840. SCHLEGEL, 1844.
“ <i>stapazina,</i>	DRESSER; B. of E.
<i>Ænanthe albicollis,</i>	VIEILLOT; Faun. Fr., p. 190.
<i>Le Moteux Regnauby,</i>	VIEILLOT.
<i>Traquet Oreillard,</i>	OF THE FRENCH.
<i>Schwarzöhriger Steinschmätzer,</i>	OF THE GERMANS.
<i>Monachella,</i>	OF SAVI AND STOR.

Specific Characters.—Throat always white or whitish; rest as in *Stapazina*. Length five inches seven to nine lines.—TEMMINCK. Length of specimen sent me by Mr. Tristram, six inches.

THE Black-eared Wheatear is an inhabitant of the middle-sized mountains of the south of Europe, and, according to Temminck, is more common in the north of Italy than the preceding species. It is frequently found on the shores of the Mediterranean, in the Apennines, in the Illyrian Provinces, in Sardinia, Neapolitan States, and Spain, but, like the preceding species, never in the centre of

Europe. It appears in the south of France in spring, but never in great numbers. It is mentioned by Count Mühle as being found in Greece. The Hon. T. L. Powys, in his very interesting description of the birds of the Ionian Islands, ("Ibis," April, 1860, page 140,) says that this bird is the least common of the three species observed there. It arrives with the Common and Russet Wheatear, in March. It is included in Captain Loche's list of Algerian birds; in that of Mr. Tristram of Northern Africa; and Mr. Salvin of the Eastern Atlas. Schlegel gives Arabia and Egypt as localities. It occurs in the Himalayas, Bengali, Calcutta, (Jerdon and Blyth;) Siberia, (Von Heuglin.)

The habits of the Eared Wheatear are very similar to those of *S. stapazina*. It is found in nearly the same localities, and was long confounded with it. They are found in the most retired and arid regions, and together imitate the songs of other birds. The two species, according to Degland, are to be distinguished by the throat being at all times white in *aurita*, and always more or less black in *stapazina*. The tarsi also are shorter, and the colour of the eyes more lively than those of the latter bird. On this subject we have also the high testimony of Count Mühle, who remarks, that although the identity of the two species has been advocated by Bonelli, Calvi, and Ritter Von Marmora, he has had abundant opportunity in Greece of satisfying himself that they are distinct. In the specimens which are now before me the buff colour is much lighter in *aurita* than *stapazina*, and the tarsi are slightly shorter; the curve at the end of the upper mandible is also shorter. Altogether it is very difficult to come to any other conclusion than that they are races of the same bird.

The Rev. H. B. Tristram, whose knowledge of these birds is very considerable, and derived from that sure source, practical acquaintance in their own homes, writes me word—" *S. stapazina* and *S. aurita* differ from the youngest to the oldest stage constantly. They are both very common on the sides of the Atlas, especially the southern. I have taken many nests, but never knew the two cross. There is not the slightest difference in the sexes. The nests are alike. In the eggs, to judge from a small induction, *stapazina* has more spots collected in a zone at the broad end; in *aurita* they are more generally diffused over the surface. They build in niches in rocks and ruins, and on the ground or steep banks, or among the stumps of old trees. They differ among themselves, I should say, as Whinchat and Stonechat, and yet it is very curious how close, and yet how distinct they are. I have got a nest of each taken from the same ruins."

"The favourite resort of the Eared Wheatear," says Mr. Salvin, ("Ibis," vol. i., page 307,) "is among stony ground at the foot of the hills; and in such places it may be looked for and generally found. Roman ruins also are much frequented. We obtained two nests from the Madracen, where they were placed in the interstices of the stone of that building. Usually the nests were close by or under a large fragment of rock."

Like *stapazina*, the Eared Wheatear builds its nest among rocks and stones near the ground. The nest is deep and wide, and not made with much care. It is formed of dry grasses, wool, hair, etc., in which is deposited five or six eggs, of a greenish blue, generally deeper coloured than those of *stapazina*, and with the spots thicker, and more coloured with brown or rust red.

Salvadori ("Fauna d'Italia") remarks of this bird:—"This species mingles with the Wheatear, but in much fewer numbers, and in many parts of Italy it is unknown. In the Campagna Romana, at the time of the passage, it is abundant, and then one will be found in the markets at Rome to every four or five Wheatears. It certainly nests on the mountains of Liguria, but probably in other places as well. The nest resembles that of the Wheatear. The eggs, five or six in number, are of a sky blue green, with brown or russet red spots. This species is said by some to be the same as the *monachella* of Savi, and by others not to be separated from *stapazina*. This error was caused by the inexact observations of Bonelli, La Marmora, and Calvi. It is now known to be quite distinct."

I extract the following from Mr. Savile Reid's "Gibraltar Notes:"—"May 25th., 1873. Only one pair of *S. aurita* were seen, every attempt to find the nest proving futile. The two species (*stapazina* and *aurita*) are exactly alike in their habits and in their notes. The alarm-note is like that of the Stonechat." "June 14th. We saw a male *aurita*, whose motions clearly indicated the presence of a nest, but we could not find it. I want to find a nest very much, to compare eggs and nest with those of its *very* near relative *S. stapazina*."

I have four eggs in my collection, from Moeschler, which were taken in Spain. They are smaller than my specimens of *stapazina*. Mr. Dresser, quoting Major Irby in his account of this bird, says *in* cork woods, which Major Irby says is a mistake, and an obvious impossibility. Mr. Dresser either misread the note for some other species, or hastily wrote "*in*" for "*near*."

The male in breeding plumage has the head, nape, and back of a light buff. Rump, throat, and two thirds of tail below, white; abdomen and under tail coverts, creamy white, more or less shaded with

light buff; scapularies a mixture of buff and black feathers; greater wing coverts, two upper tail feathers, lower third of tail underneath, and a band extending from the gape along the entire cheek and side of head, glossy black. Wing primaries hair brown, secondaries darker; beak and legs, black; iris, dark brown.

The female, according to Degland, differs sensibly from the male during the breeding season; the side of the head is brown, mixed with russet; the throat is dirty white; the wings less black, and that of the tail quills less extended. In autumn the changes of both sexes are similar: more russet on the upper and lower parts, and the feathers of the wings deeply bordered with russet.

The young before the first moult resemble the young of the Rock Thrush: an ashy russet, darker below, with each feather bordered with brown, and marked in the centre with a yellowish spot; middle of the abdomen and under tail coverts, of this tint; middle and greater wing coverts broadly bordered with russet. After the first moult the young only differ from the female in autumn, by the wing having no trace of brown on the side of the head, and by the throat being russet.

My figures of this bird and its egg are from specimens with which I have been obligingly favoured by the Rev. Canon Tristram.

Figured by Brisson, Orn., vol. iii., pl. 25, fig. 4; Edwards, pl. 31, (a good figure, but given as the female of *S. stapazina*;) Vieillot, Faun. Fr., pl. 85, figs. 1, 2, and 3; Roux, Ornith. Prov., pl. 200, (adult male;) Bouteille, Ornith. du Dauph., pl. 22, fig. 4; Gould, B. of E., pl. 92; Dresser, B. of E.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SAXICOLA. (*Bechstein.*)

PIED WHEATEAR.

Saxicola leucomela.

<i>Motacilla leucomela,</i>	PALLAS; Nov. Comm. Petrop., xiv., p. 584.
<i>Saxicola leucomela,</i>	TEMMINCK; Man., 2nd. Ed., vol. iii., p. 166.
“ “	KEYSERLING AND BLASIUS.
“ “	SCHINZ. SCHLEGEL. DEGLAND.
“ <i>lugens,</i>	LICHTENSTEIN; Cat. des doubles du Mus. de Berlin, p. 33.
<i>Vitiflora leucomela,</i>	BONAPARTE.
<i>Traquet leucomèle, Motteux</i>	
<i>leucomèle, Motteux pleschanka,</i>	OF THE FRENCH.
<i>Elster Steinschmätzer,</i>	OF THE GERMANS.

Specific Characters.—First primary shorter than the third; basal half of two middle tail quills white, the other half black; upper tail coverts, white; under tail coverts slightly tinged with russet. Length of male specimen sent me by Mr. Tristram, six inches; carpus to tip three inches and a half; tarsus one inch.

THIS bird is an inhabitant of the north of Europe, especially the southern parts of Russia, the Dauria, the Altai Mountains, and Lapland. There is a species found in India, which only differs from the present in having the under tail coverts white instead of pale russet. This is, however, thought sufficient, by Gray and others, to separate it from the *leucomela* of Temminck; the consequence of which is, we have two *leucomelas*, that of Latham in India, and that of Temminck in Europe.

Salvadori, "Fauna Italica," says, "Only one individual of this species according to my experience has as yet been taken in Italy, a male was captured in December of 1860 near Cornegliano in Liguria, and is preserved in the collection of Signor Negri, which is now in the Civic Museum of Geneva. This species, which inhabits East of Europe and West of Asia, is often confounded with *S. lugens*, Licht., from which, however, it is perfectly distinct. Both species are in the Museum of Turin, and the difference between them is very marked."

Dr. Leith Adams informs me that the bird mentioned in Mr. Carte's "Observations on the Climate and Zoology of the Crimea," as being observed there during the passage in April, is the Indian species, with the white under tail coverts. This makes it extremely probable that there is only one species. Temminck mentions the Levant and Crimea as localities for his species. The European bird also differs in the more or less deep shade of the russet colour of the under tail coverts. One variety has been called and described as a different species under the name of *S. lugens* by Lichtenstein. This has also been found in Greece by Count Mühle. It inhabits the Levant, Egypt, and Nubia; while Temminck's typical species is found more especially in the Ural and Siberia. All modern authors, however, agree in considering that the *darker* under tail coverts of *S. lugens* do not entitle it to specific distinction from *S. leucomela*. Why then should a *lighter* colouring of the same feathers, and part of the shafts of primaries, be adduced as evidence of a specific difference between the Indian and European *leucomela*?

Mr. Tristram writes me word that he doubts the identity of the African and Indian *leucomela* with *lugens*; but he adds, "take an Egyptian or Arabian bird, and you will find an intermediate gradation. Are they not all *races* of the same species?"

The Pied Wheatear has habits very similar to its congeners. It builds in the clefts of rocks, sometimes in old churches, and occasionally, according to Nordmann, among heaps of stones. Temminck says it also builds in the banks of rivers, in the holes made by wasps. It lays four or five eggs, having the general character of those of the family. Its food is beetles and other insects.

The following interesting account of the breeding habits of this bird is from Mr. A. S. Cullen of the Dobrudscha:—"This pretty little bird may be found about all the sea-cliffs and inland quarries of the Dobrudscha during the spring and summer months; but at no time, nor in any place, can it be considered anything like a very common bird. The only place where it breeds at all plentifully is along the low cliffs which border the Rere-Gheel on the southern side. The Rere-Gheel

is a salt lake of considerable size close to the sea, about ten or twelve miles south of Kustendji. The cliffs just alluded to run along the side of the lake for several miles. They are composed in about equal proportions of clay (above) and soft limestone (below). The nest is always placed close to or only just within the mouth of the hole chosen for its reception. All the nests I found were made in holes in the lower or rocky part of the cliffs, except two or three, which were made in holes in the earthy part. One of these latter was most beautifully and artfully concealed, being placed well inside a hole which was overhung by a tuft of wild thyme, which completely hid the nest from sight. Another nest was placed in a small domed cavity, so as to leave just sufficient room to allow the bird to pass in and out. The nest, which is generally placed near a former old nest, is a good deal smaller than that of the Common Wheatear. It is entirely composed of fine fibres intermingled with a few straws and hairs. The eggs are laid at the end of May to beginning of June, and are from four to six in number. Out of nine nests taken by me, three contained one egg each, one three, one four, one five, and three six. The nest with three eggs, that with five, and one with six were all more or less incubated. The rest were fresh. I do not think the male ever sits; at least, I never saw one fly from the nest in which the eggs were being incubated. The female does not sing, and is very shy and retiring; but the male sings often in the vicinity of the nest, and is a bold and familiar bird, and always shows himself. Before he commences his song he generally mounts up some little distance into the air. His song is very lively and pretty, and sometimes lasts a considerable time. Like its congeners, the Pied Wheatear is extremely restless in its manner, flitting about from stone to stone, and never appearing to rest for a moment."

I have a series of eight eggs of this bird in my collection, three of them from the late Herr Seidensacher, and five from one nest sent over to England by Dr. Cullen, and taken near Kustendji—I believe from the locality mentioned by Mr. Cullen above. They do not vary greatly in size, being about seven tenths by four tenths of an inch in length and breadth. The ground-colour very pale green, prettily and rather thickly spotted with russet, more particularly at the larger end, where in some specimens the spots form a zone.

The Rev. Canon Tristram records the capture of this species in Palestine, ("Ibis," 1859, Editor's note.) He says, "A pair shot at St. Helena's Well, not far east of Bethany. They had a nest in a hole of the wall over the well, containing four blue eggs, thickly spotted with rusty brown." The same author, in the same volume,

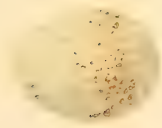
page 300, describes its capture in Northern Africa. "This bird (called the Mourning Chat) in habits is very like *S. philothamna*, (Tristram's Bush Chat,) but, less confined to the bushy parts of the desert, does not appear to come so far into the M'zab country. It dwells in the boundless deserts of the Touareg, south of the furthest French imaginary line. It was only here and in the Chamba country, south-west of Waregla, in latitude $30^{\circ} 50'$ that I obtained specimens. It is very shy, and possesses great powers of flight." Mr. Taylor, same volume, page 48, says, "The most abundant of all the *Saxicole* on the Nile."

In his paper on the "Ornithology of Palestine," ("Ibis," 1867, p. 95,) Mr. Tristram writes:—"The *S. leucomela*, Pall., with the black back and white vent coverts, we only obtained once, but may have often overlooked it; but the *S. lugens*, Licht., (*S. leucomela*, Tem.,) with the russet vent coverts, was very common throughout the year in the rocky regions overhanging the Jordan valley and in the Judæan wilderness. If *S. libanotica* were Israelite, *S. lugens* was of Judah; for never out of Rehoboam's kingdom did we find it. There it remained, its plumage varying neither sex nor season—the Pied Wheatear, always at once to be identified by its ruddy vent. While we shot it by the shores of the Dead Sea, it also resorted to the fallow fields of the uplands; and on one occasion I found a nest (with young instead of eggs, fortunately or unfortunately as the case might be,) in the stone wall of a barley-field. We once took the eggs exactly like those of *S. libanotica*."

Mr. C. W. Wyatt ("Birds of Sinai," "Ibis," 1870,) says this bird is "the only Chat that is universally distributed in that country, occurring everywhere from the highest mountain regions to the sea shore."

Mr. J. H. Gurney, on the Ornithology of Algeria, ("Ibis," 1871, p. 80,) writes of this bird:—"It was only on the dreary route between Gardaia and Berryan, where there is scarcely a particle of herbage to harbour insects, that I observed this bird, except in one instance, when I shot a specimen at Mellika; and it would seem that it rarely enters oases. On the Berryan route many pairs were seen, mingled though not actually consorting with a few *S. deserti*."

The adult male in breeding plumage has the summit of the head, nape, rump, lower part of chest, and abdomen, pure white; side of the head, throat, front of neck, space between the eyes and beak, and greater wing coverts, sooty black. Wings brown, the secondaries slightly bordered with white. Tail white for two thirds of its length, the end and two middle tail feathers black; under tail coverts light russet; beak, feet, and iris, black.



1. PIED WHEATGRASS.

2. MENETRIES' WHEATGRASS.

The female is ashy brown above, with a paler tint on the head; ashy below, with the eyebrows and throat white.

Birds of the year, according to Degland, have the head varied with white and brown; feathers of the back and wing coverts bordered with russet; throat and front of neck barred with russet and black; abdomen dirty white. The young males have the flanks ashy grey.

The bird is figured from a specimen kindly sent me by the Rev. Canon Tristram. The egg is from my own collection: it is one of a nest of five taken by Mr. Cullen at Kustendji. I have also a long series of them from South Russia, collected by Herr Glitsch.

Figured also by Pallas, *Nov. Com. Petr.*, 14, pl. 22, fig. 3; Temminck, *pl. color.* 257, f. 3, adult male; *Guldenstadt, Nov. Comm. Petrop.*, vol. xix., p. 468, pl. 15; Dresser, *B. of E.*

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SAXICOLA. (*Beckstein.*)

MENETRIES' WHEATEAR.

Saxicola isabellina.

<i>Saxicola isabellina,</i>	RÜPPELL; Atlas, pl. 34, 2.
“ <i>saltator,</i>	MENETRIES; Cat. Cauc., 1836.
“ <i>saltatrix,</i>	KEYSERLING AND BLASIUS; Die Wirbelt, 1840.
“ “	SCHLEGEL; Revue, 1844.
“ “	DEGLAND, 1849. BREE; 1st. Edition.
<i>Vitiflora saltatrix,</i>	BONAPARTE, 1838.
<i>Traquet Oriental,</i>	OF THE FRENCH.
<i>Ostlicher Steinschmätzer,</i>	OF THE GERMANS.

Specific Characters.—The first primary equal in length to the fourth feather of the greater wing coverts; the second a little longer than the fifth; the second and fourth about equal, but shorter than the third, which is the longest in the wing. Length of a specimen sent me by Mr. Tristram, and which is figured, six inches and three quarters; carpus to tip of wing four inches; tail two inches.

THIS bird is an inhabitant of Egypt, Nubia, the Ural Mountains, Greece, and borders of the Caspian Sea. It is mentioned by Mr. Tristram in his list of the Birds of Palestine, and by Von Heuglin among those collected by him during a voyage in the Red Sea, (“Ibis,” vol. i., pages 29 and 341.) Von Heuglin found it in the Danakil country, between the Peninsula of Buri and the Gulf of Tadjura, on the Somali coast, and in Southern Arabia. In his “Vogel Nord Ost Africas,” he further remarks, “The borders of the forehead



MEAD'S WHEATEAR.

generally a whitish isabell like the eyelids; the hinder part of the back more or less plainly sprinkled with rusty-ochre. The colours of the upper part of the side ranges between a lively rusty fawn and greyish ochre tending to sand yellow. Egyptian specimens are throughout smaller than those of Abyssinia. Krüper says that in the young birds the lower part of the beak is yellow, the back a clear yellow spotted, wings and their coverts speckled with rusty yellow."

"The Isabell Coloured Wheatear is mostly a mountain bird; yet it is met with less on bare rocks than on pastures and poor cattle fields, on arable ground or in the desert. In Habesch it is a more frequent resident, and we met with it there even in the borders of the snow-line. It appears singly in autumn, winter, and spring, in Egypt, Arabia, on the islands and along the coasts of the Red Sea, in the Somali Land, Nubia, Senaar, and Kordofan. In Abyssinia the breeding-time falls in our winter season. I found the nest on the 28th. of February, 1853, on the high mountains of Semia at about ten thousand feet elevation. It was placed on the shelving projection of a cleft in a horizontal rocky bank; was tolerably large, thickly woven together with soft dry grass, and contained two clear pale greenish fine-shelled eggs, eleven lines by seven and three quarters. In the same month I remarked at Gondar half fledged young birds which ran about nimbly on the pastures, and hid themselves in rat-holes. The old birds live mostly in pairs, keep much on the ground, and are seldom seen on dry bushes, but more on small landmarks and clumps of earth, where they sing and jerk their tails. According to Krüper, the above song is something like that of the Dipper, or a shepherd's whistle."

Mr. J. S. Allen ("Ibis," 1864,) in his *Birds of Egypt and Nubia*, remarks:—"The only Wheatear found near Cairo (or rather Ghizeh) in winter is *S. isabellina* of Rüppell, described by Bree under the name of *S. saltatrix*, and which Dr. Adams seems to have mistaken for the female of *S. oenanthe*.....When the two birds are compared, *S. isabellina* will be found to be a larger and heavier bird altogether, with marked differences of bill, tarsus, etc.....I have found the plain of Thebes a particularly good place for those Chats peculiar to the upper country."

In accordance with the more general application of the name of Rüppell for this bird, I have used it in this edition. Canon Tristram ("Ibis," 1867,) on the Ornithology of Palestine, has the following remarks *apropos* to the subject:—"While our own Wheatear only appears on migration, a very closely-allied form belonging to the hotter regions of North Africa, *S. isabellina*, remains all the year

round, and breeds on Hermon, only two hours walk lower down than *S. rostrata*, Ehrenberg, the large-billed variety of the Wheatear. Mr. Sclater pointed out to me the identity of *S. saltatrix*, Ménéti., with *S. isabellina*, Rüp.; and I fully agree with him, excepting that there seems to be a slight constant difference in size between the two, the species which breeds in mountains being rather larger, and that which is so numerous in the Judean desert in winter, which I take to be the typical *S. saltatrix*, having a black line from the gape to the eye wanting in all the northern specimens, and which I can scarcely take to be a mere seasonal distinction. The nest and eggs of *S. isabellina*, which have not before been described, are exactly like those of the Common Wheatear."

Mr. E. C. Taylor, in "Egypt Revisited," remarks:—"This large, stout species is resident throughout the winter, and abundant all the way from Cairo to Assouan. It frequents the patches of short burnt-up grass at the edge of the desert. The sexes are alike in plumage. This species is figured by Dr. Bree."—"Ibis," 1867.

Mr. W. E. Brooks, of Etawah, in India, writes to the "Ibis," January, 1869:—"Dr. Bree, in describing *S. saltatrix*, does not describe the bird with sufficient minuteness to distinguish it from the female or young of *S. oenanthe*. My birds above mentioned have a black band from the base of the bill to the eyes. Round the forehead, and extending above this black band, and behind the eye, for 0.125 inches, is a white stripe. In other respects the bird is like Dr. Bree's plate, but does not agree with his description when he says the back is a mixture of 'buff with *olivaceous green*.' My birds are brownish buff above, without any tinge of green.....In describing birds which closely resemble each other, excessive detail in measurement is not wanted; for birds of the same species vary so much from the length of the whole body to that of the shortest claw."

There is much good sense in these remarks, though written in the impulsive style adopted by the Indian naturalists of these days. In the present case it is the general increase of size of all parts of the body which constitute the chief difference between this bird and our Common Wheatear. Dimensions, then, are here an important element in the diagnosis, because general and constant. The female, however, of *S. isabellina* is an ashy brown bird, which Mr. Tristram ("Ibis," loc. cit.) tells us resembles that of *S. libanotica*, which is like anything but our Wheatear, as may be seen by consulting Dresser's plate 207, where it is figured under the name of *Saxicola erythræa*.

Mr. Hume ("Ibis," 1870, p. 143,) confirms Mr. Brooks' opinion that his specimens were those of *S. isabellina*, and in the same volume, p.

288, Mr. Brooks remarks,—“The birds I mistook for *Saxicola œnanthe* are certainly *S. saltatrix*, which is a larger bird, and of a purer and lighter brownish grey above; but the great distinction is the colour of the under wing coverts, which are unspotted white in *S. saltatrix*, and black and white in *S. œnanthe*.”

Captain J. Hayes Lloyd (“Ibis,” 1873, p. 410,) says this bird is very common in the province of Kattiawar, Western India. It is included in the birds of Amoorland by Middendorff (“Sibirische Reise”), and there is a long account of it in Schrenck’s “Vogel des Amur Landes,” p. 356. It does not appear to occur in China, Japan, nor the island of Formosa, (Swinhoe, P.Z.S., 1863.)

This bird in Siberia, having been fully described by Schrenck, Radde only adds that the wing in his example measured from 3" 8" to 3" 9". The beak was considerably longer—7" long. It appears earlier than *œnanthe*. On Tarei-Nor the first stragglers appeared on the 29th. of March. In the Selinga Valley sixty versts north of Kjachta, he saw the first on April 8th., 1857. In the high plains of Tunka they were seen as late as the 23rd. of April in 1859. In the birds killed on the 23rd. of August, at Kulussutajefsk, the feathers of the breast were moulting. The song of the species begins with a croaking note followed by a piping.

Head, nape, and back down to the rump, and wing coverts, a mixture of buff with olivaceous green; rump and basal half of tail pure white. Wings brown, the primaries after the fourth lightly, and the secondaries more deeply bordered with the same colour as the back, but brighter, the same tint as the fringe being shewn where the colour of the back passes into the white of the rump. As usual in all the Wheatears I have described, the two middle tail feathers are black after the first third from base. Throat, neck, and lower part of abdomen, dirty white; the chest and upper part of the abdomen, under wing and tail coverts, light buff.

The colours above described of the feathers of the body, are produced by tint at the *extremities* of the feathers only. The real colour of all the feathers below the surface is black, like that of *leucomela*, a point well worthy of attention in looking at the affinities of these birds, and estimating how far their variations in colour may be owing to climatic causes and mode of living.

The feathers covering the ears are a darker buff, with a light line extending over them from the angle of the eye. Feet black, the hinder claw more strongly curved than the anterior ones; beak horn coloured.

I am indebted for the bird from which my drawing is taken, to the

kindness of the Rev. Canon Tristram. It is from a male killed in Egypt, February 5th., 1852. The egg is from a specimen in my own collection, taken by Her Glitsch in South Russia. It is quite distinct from the egg of the Wheatear, or any other European Chat.



RAREE WARBLER.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SYLVIA. (*Latham.*)

Generic Characters.—Beak slender, compressed on the anterior half; the superior mandible sloped towards the point, the inferior mandible straight. Nostrils basal, lateral, ovoid, and half closed with a membrane. Tarsi longer than the middle toe; three toes in front and one behind, the external one united at its base to the middle; the claw of the hinder toe shorter than the toe, and curved. The first wing primary is very short, or absent, the second a little shorter than the third, or as long; the greater wing coverts much shorter than the primaries; tail extended, unequal, rounded or square.

BARRED WARBLER.

Sylvia nisoria.

<i>Sylvia nisoria,</i>	BECHSTEIN. MEYER AND WOLFF.
" "	TEMMINCK. VIEILLLOT. CUVIER.
" "	KEYSERLING AND BLASIUS.
" "	SCHINZ. SCHLEGEL. DEGLAND.
<i>Nisoria undata,</i>	BONAPARTE. NAUMANN.
<i>Curruca undata,</i>	GERBE; Dict., 1848.
<i>Bec-fin rayè, or</i>	
<i>Fauvette epervière,</i>	OF THE FRENCH.
<i>Sperber Grasmücke,</i>	GERMAN.
<i>Celega padovana,</i>	SAVI.

Specific Characters.—Secondaries fringed with light grey; the middle tail quills and under coverts broadly bordered with white; the lateral tail quills with a white spot at the extremities and inner borders. Length of adult female from M. Verreaux, which is figured, seven inches; carpus to tip three inches and a half; tail two inches and a half; tarsus one inch.

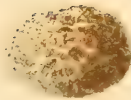
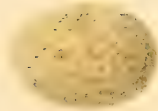
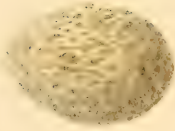
THIS is one of the largest species of European *Sylvindæ*. It inhabits particularly the north and eastern parts of Europe. It is found on the shores of the Mediterranean, and thence to Sweden and Norway, the north of Germany and some parts of Russia, and in Hungary. It is more rare in Austria, but is found in Lombardy, in Piedmont, Central Italy, and the coast of Barbary. Count Mühle doubts if it occurs in the Pyrenees. According to Temminck it is found accidentally in Provence, and during its passage in Tuscany; less rare in the Levant, and common in the neighbourhood of Vienna. Canon Tristram records it among the birds of Palestine, but rare, in dry wadys during its spring migrations, very few supposed to remain. Von Heuglin says that this bird was only seen by him rarely in October and beginning of April in Nubia and Northern Senaar. It was always to be found, but separately along the Nile. The birds seen were mostly young ones.

Salvadori, "Fauna d'Italia," writes, "Rare in Italy. More frequently found in Venetia than elsewhere. According to Perini it is common in the Veronese territory, where it nests upon the mountains or hills. It is not very rare in Piedmont. In Liguria and Modena it occurs accidentally. I have killed a young bird of this species in the Marches on the 15th. of August, 1855, and another on the 30th. of August, 1871. It does not appear to be met with in Sicily unless accidentally, though Malherbe includes it in his 'Fauna Ornithologique de la Sicilie.'

The habits of this bird are but little known. It is more frequently found in Germany and some parts of Russia. The two individuals which I killed were in a vineyard. According to Perini it appears in April on the Veronese hills, and nests there. The nest is similar to that of *S. orphea*. Eggs four to five, spotted with lead colour. When the young are fledged it goes down into the plains, and leaves at the end of September. The nest is said to have been found several times near Torbe. It will be important to verify this assertion of Perini.

This species appears to me to be nearly allied to *S. orphea*, with which it has in common the size and stature, and also the same light yellow coloured iris, which occurs only in the adult. In the young it is dark grey.

Gerbe states that this bird is found in Sicily and Tuscany, but nobody has ever found it there. The female does not differ much from the male. The young bird before the first moult has the under parts whitish without spots of any kind. In this state Savi, mistaking it for an adult bird, proposed to give it distinct rank under the name of *Pajola*."



1. BARRED WARBLER.

2. RUPPELL'S WARBLER.

3. SUB-ALPINE WARBLER.

The Barred Warbler belongs to the same division as the White-throats, and, like them, though of considerable size and somewhat clumsy appearance, it is swift and active. It lives generally very much concealed, and is not therefore so often observed as other members of the group. It has a particular predilection for thorny bushes. Avoiding mountainous districts, it is found in field hedges and young thickets, particularly where blackthorn and whitethorn abound. In spring it is observed in woods on high trees about the period of migration, getting again into the thickets in the autumn. It is a restless bird, never known to sit still, hopping about from branch to branch, and gliding along the fence with considerable rapidity. When met with suddenly, it raises up the feathers on the top of its head, like the Common Whitethroat, jerks up its tail, and utters a harsh cry.

Count Mühle does not give our bird a very high character. He says it is not only a very restless, but also a very quarrelsome and jealous fellow, driving away all other birds out of its hunting district; and while the lady bird is performing the duties of incubation, her lord is assiduously employed in driving off all disturbers of the peace.

The note of *S. nisora* is strong and melodious, and it sings from early morning till late in the evening a song not inferior to that of the Garden Warbler, which it somewhat resembles. It sings frequently while flying, and may often be seen rising up several yards into the air, and then falling down like a shot upon another tree or bush, alternately flying and fluttering.

In autumn the young males may be heard like the other Hedge Warblers, snapping and croaking to all comers.

The Barred Warbler, according to Mühle, builds in the beginning of May in thick thorn bushes, at a height of two to four feet, a slight half-globular-shaped nest. It is made very loose, with dry stalks of plants, small straws interwoven with spiders' and caterpillars' webs, and lined inside with horse-hair. It lays four to six eggs, grey greenish or yellowish grey, with bright ash grey or pale brown spots. They only breed once a year, and the male and female sit on the eggs alternately.

The male has the whole upper part of the body clear dark grey, usually with a rusty yellowish tint. The greater and lesser wing coverts and upper tail coverts edged with white, more feeble and contracted from the third to the fifth primary; the third primary longest, the second almost as long; tail dark ash grey, first feathers with outer border whitish; the middle quill and second quill have at the end a broad wedge-shaped white spot; the third and fourth an oblique deep edge of white. Under parts of body greyish white, and flanks darker,

with dark grey wavy lines, especially well-marked on the under tail coverts, taking there a lanceolate form. In the young birds these wavy lines are indistinct, but as they increase in age, especially the males, they become more numerous and darker. Beak slightly hooked at the tip; iris deep yellow; feet yellowish grey.

In the female the colour is duller above, and the chest and flanks tinted with russet; the white spots at the end of the tail are smaller and not so distinct.

The young before the first moult, according to Temminck, are of a uniform grey. Vieillot and Mühle say they are covered with crescentic spots, which are greyish brown on the neck and throat, chest and flanks.

After the first moult they have the upper parts grey, with indistinct bands of a russet white; under parts white, except the flanks, which are very slightly marked with grey.

The bird figured is an adult female sent to me by M. Verreaux. The egg is from a nest of six in my own collection, sent to me by the late Her Seidensacher. The egg is sometimes found without any spots, being of a pure glossy greenish white.

This bird has also been figured by Roux, *Ornith. Prov.*, pl. 222, (male;) Gould, *B. of E.*; and Naumann, *Taf.*, 76; Dresser, *B. of E.*

As Gould and Roux have figured males I have thought it best to give a drawing of the female, though males are figured in this work as a general rule.



PUFFINBIRD WARBLER.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SYLVIA. (*Latham.*)

RUPPELL'S WARBLER.

Sylvia rüppellii.

<i>Sylvia rüppellii</i> ,	TEMMINCK; Manual, 1835.
“ “	KEYSERLING AND BLASIUS, 1840.
“ “	SCHINZ; Europ. Fauna, 1840.
“ “	SCHLEGEL; Revue, 1844.
<i>Sylvia capistrata</i> ,	RÜPPELL; Atlas, pl. 19.
<i>Curruca rüppellii</i> ,	BONAPARTE, 1838.
“ “	GERBE; Dict., 1848.
<i>Bee-fn Rüppell</i> ,	OF THE FRENCH.
<i>Rüppell's Sänger or Grasmücke</i> ,	OF THE GERMANS.

Specific Characters.—Above ash grey; tail black, the outermost quill feather clear white; on the two following, the tip and a wedge-shaped spot on the inner web, white; on the fourth and fifth also a small white spot on the tip. Length about five inches and a half.—MÜHLE.

THIS Warbler is an Asiatic species, inhabiting especially the borders of the Red Sea and the Nile. It was introduced into the European fauna by Temminck in the last edition of his “Manual” in 1835. Its European locality has hitherto been confined to Greece, where it was observed, though rarely, by Count Mühle. According to Lindermayer it occurs in the bushy ravines of the Attic mountain range, but Count Mühle found it only in the Morea. The single specimen he captured, he informs us, was “sitting on the outstretching branch of a bush in the hollow of a rocky ravine.”

It appears in Greece in May, and leaves in August. It does not seem to be so sprightly or quick in its movements as its congener, the Dartford Warbler. It will sit on the end of a branch with "hanging tail" while guns are fired in the neighbourhood, without being alarmed. Count Mühle adds nothing about its song, and says that its nidification and propagation is one of the points in its natural history still to be elucidated. Thienemann says the nest is cup-shaped, somewhat scantily and loosely built of dry stems of plants, dry leaves, strips of bark and vines, loosely lined inside with softer materials. The ground-colour of the eggs is milk or yellowish white, with delicate pale green and grey green spots, which form a narrow ring near the base.¹³²

Von Heuglin says of this bird, "Rüppell's Warbler is a bird of passage in Egypt, Nubia and Arabia. It is met with in hedges and on tamarisks, reeds, (*Arundo donax*), isolated thorn-trees, in gardens, hills near water or on fields, meadows, and dry, almost bare, heath land. In lower Egypt I have observed the first bird between the 6th. and 10th. of March, but most frequently from the 15th. to the 25th., generally then in pairs, and sometimes in company with *S. subalpinus*. I also observed this bird on islands and the shores of the Red Sea southwards as far as Massowah. In the middle of April all have disappeared. They come again, but in more divided parties, in September, on their way to the south through North-east Africa. They are rather lively in their movements, but keep during their passage mostly down among reeds and bushes, which they diligently search for insects, and do not willingly quit. Their song I have never heard. Their southern boundary is according to my observation about the 10° N. lat., in the Bocharia deserts, Takah and Samhara. It is, as Newton (*Ibis*, 1867, p. 62, note) quite rightly observes, a bird which differs from the Warblers generally, almost authorising a generic division. It inhabits the South of Europe, Palestine, Syria, and Asia Minor."

Mr. Wyatt (*Ibis*, 1870,) records the occurrence of this bird at Wady-Hamr in Sinai, where he says it is not uncommon among "retem bushes," and in the same volume, p. 450, the Baron de Selys Longchamps states that M. Salvadori showed him a specimen from Crete, "which resembled *S. Rüppellii* but seemed to belong to a smaller race." Mr. Chambers shot a specimen in Palestine, which was in some low bushes in the middle of the desert between Arish and Cairo, (*Ibis*, 1863). And the young and eggs have been captured by Dr. Krüper near Smyrna (*Ibis*, 1872,) and "Journal für Orn," 1871, p. 459. This comprises all the new information I am able to give of this rare bird.

I take the description from Count Mühle:—The whole upper part of the body is ash blue grey; the wings are brownish black; the greater

wing coverts, as well as the hind feathers of the wing, are bordered with a whitish circle; the primaries are marked externally with a whitish border; first very short, second and fifth of same length, the third the longest, very nearly the same length as the fourth. The slender black tail is rounded; the outside feathers entirely white, except at the root, which is blackish; the shafts white. Under parts white, going off into ash grey in the flanks. Bill small and contracted at the sides, curved from the middle and hollowed out at the tip—in colour, horn black, the lower mandible yellow; iris nut brown; superciliary feathers white; the naked eyelids deep cinnamon red; the feet strong and horn yellow.

The male has the crown of the head velvet black, which extends to the lore and under the eye; auricular orifice grey; cheeks dark ash, with a white band or moustache, which, from the angle of the mouth, extends along the sides of the neck, and encloses the black of the throat; the white of the under parts is delicately tinged with rose-colour.

The female has the top of the head, throat, and breast, dark ash grey, and the white parts are not tinged with rose.

In the young the grey of the upper part of the body is without spot, and duller; the throat is whitish.

According to Temminck the black feathers of the head and throat after moulting appear as white plumage, which is by degrees rubbed off.

The female figure of this bird is by permission taken from Mr. Gould's B. of E. The male is from a specimen kindly lent me by Lord Lilford, and was taken near Smyrna by Dr. Krüper.

Figured also by Temminck and Laugier, pl. color. 245, f. 1, (male;) Dresser, B. of E.

I have much pleasure in giving the figure of an authentic egg of this bird, taken for me by Von Heuglin from the only one in the collection of the Baron Kœnig Von Warthausen. The egg was collected by the well-known Dr. Krüper in Greece. The Baron says this is the true species, and that the egg figured by Thienemann and other naturalists does not belong to this bird. In the first edition I copied Thienemann's figure, having no specimen. I am very happy to make amends here.

INSECTIVORÆ.
 Family SYLVIIDÆ.
 Genus SYLVIA. (*Latham.*)

SUB-ALPINE WARBLER.

Sylvia sub-alpina.

<i>Sylvia sub-alpina,</i>	BONELLI.
" "	TEMMINCK; Man., i., p. 214.
" "	BONAPARTE; Consp. Gen. Av.
" "	SCHLEGEL, 1844. MÜHLE.
" <i>passerina,</i>	GMELIN; Syst., i, p. 954.
" "	LATHAM; Ind., 2, p. 508.
" "	TEMMINCK; Man., 1835, p. 131.
" "	DEGLAND, 1844.
" <i>leucopogon,</i>	MEYER AND WOLFF; Orn. Tasch.,
	3, p. 91.
" "	SAVI; Orn. Tosc., vol. i., p. 257.
" "	SCHINZ; Fauna Europ.
" <i>bonelli,</i>	KEYSERLING AND BLASIUS.
" <i>mystacea,</i>	MENETRIES; Cat., p. 34.
<i>Curruea passerina,</i>	Z. GERBE; Dict. un d'Hist. Nat., 1848.
<i>Fauvette sub-alpine, or</i>	
<i>Bec-fin Passerinette,</i>	OF THE FRENCH.
<i>Weissbärtiger,</i>	OF THE GERMANS.
<i>Sterpazzolina,</i>	OF THE ITALIANS.
<i>Passerine Warbler,</i>	LATHAM.

Specific Characters.—The inner barb of the primaries and secondaries edged with white in the male, unicolorous olive brown in the female. Edge of carpal joint in both sexes white. Length of an adult male from M. E. Verreaux, four inches and a half; from carpus to tip two inches and two tenths; tail two inches and three tenths; tarsus four fifths of an inch. Female about same size.



SUB-ALPINE WARBLER.

THIS bird was described by Temminck in the first edition of the "Manual" as a new species. Savi and Roux, however, clearly demonstrated that it was not specifically distinct from *Sylvia passerina*, described in the third volume (edition 1835) of the "Manual," but only that bird in the breeding plumage. Schlegel and Mühle have consequently sunk the name of *passerina*, and adopted that of *sub-alpina*, given to it by Bonelli. To add to the confusion Meyer and Wolff have also described one of the plumages of this bird as a distinct species, *Sylvia leucopogon*. It will be necessary, therefore, to bear in mind that *S. passerina* of Temminck, and *S. leucopogon* of Meyer and Wolff, are both comprised in the *Sylvia sub-alpina* of this notice.

The Sub-alpine Warbler has a wide range both in Europe and Africa. It lives along the whole coast of the Mediterranean, is abundant in Algeria and Egypt, and is found in Sardinia, Italy, Dalmatia, Silesia, and in the Steppes of New Russia and the Ghouriel. It also occurs plentifully on the borders of the Caspian Sea. In the south of Europe it generally appears with the other migratory Warblers in the beginning of April. In Greece Count Mühle informs us it is seen about the middle of March, in the low bushes and shrubs along the dried-up river-beds in the mountainous parts of the country. In Italy it occupies similar localities, in company with the Common Whitethroat, and leaves in September or beginning of October. Colonel Irby writes to me that it is common at Gibraltar during its passage, arriving about the end of March. Some few nest in scrubby brushwood on dry ground. "I never saw a nest, but Lord Lilford found a nest early in May."

The Rev. Canon Tristram records his first capture of this bird in North Africa, ("Ibis," 1860,) and Lord Lilford, (then the Hon. T. L. Powys,) in the same volume writes of its occurrence in the Ionian Islands:—"A beautiful specimen of this pretty little bird was brought to me by one of my yacht's crew, who had picked it up close to the lighthouse of Santa Maura on the 24th. of March, 1857. I have occasionally noticed this species in Epirus in February and March."

Mr. Chambers ("Ibis," 1867,) found it plentiful near Tripoli. Mr. Howard Saunders, in his papers on the Ornithology of Spain ("Ibis," 1869,) writes while wandering among the rocks near Archena:—"A fine male *Sylvia sub-alpina* baffled all my efforts to obtain it, owing to its extreme tameness; it obstinately refused to remove to a distance sufficient to avoid my blowing it to pieces; and situated as I was on a narrow ledge of rock, I could not retreat. I watched it

for the best part of an hour, never at more than fifteen paces from me, and found it far more lively and curious than the Grasshopper Warbler, which, after once diving into the recesses of a bush, rarely re-appears. I afterwards obtained a specimen near the same locality."

Mr. Gurney, Jun., ("Ibis," 1871,) records the capture of two at M'zab, and one at Tibrem, in Algeria; and Mr. F. du Cane Godman, ("Ibis," 1872,) quoting from the "Journal für Ornithologie" of 1854, p. 453, states that Berthelot found it nesting in Teneriffe. Mr. A. B. Brooke, on the Ornithology of Sardinia, ("Ibis," 1873,) says:—"I cannot say whether these Warblers remain in Sardinia during the winter. They are moderately common in summer on the low wooded scrubby hills, and along the river banks. They seem to be more partial to trees than most of the other small Warblers, and are extremely shy and difficult to see. I saw young birds flying on the 12th. of May."

According to Savi it is not often seen consorting with Blackcaps or Garden Warblers, although its song is somewhat of the same character. When the male wishes to sing he glides out of the bushes, and perching on a neighbouring branch, sends forth his clear agreeable melody. When he has finished, or is disturbed, he glides again into the fence, and only makes his whereabouts cognizable by his frequent call-note, similar to that of the Common Wren. These habits fortunately render it a very difficult bird to capture.

It builds twice a year; its nest is globe-shaped, placed in thick bushes from three to five feet from the ground, formed outwardly of straw and withered grass, and within of delicately small roots, rarely lined with wool, and interwoven with the webs of spiders and caterpillars. It lays four or five eggs, roundish, greenish white, sprinkled with small brown spots, which are most numerous and large at the broadest end. The male relieves the female in incubation during the middle of the day.—Mühle.

According to M. Moquin-Tandon, as quoted by Degland, MM. Webb and Berthelot brought from the Canary Islands eggs of this species, which were exactly similar to those which he took in the neighbourhood of Montpellier.

Von Heuglin, in his "Birds of North-east Africa," says of this bird:—"In the freshly-moulted male, the feathers of the breast and fore-neck have a white border. This Warbler was originally observed by us in the spring in Lower Egypt and North Arabia. Here it arrives about the 18th. or 20th. of March. It keeps close, and in pairs, in low bushes on downs and shrublands, in hedges, and especially in thickets of *Arundo*. It also takes advantage of opportunity to visit

barley-fields and grassy plains. We never observed it in higher bushes, forest underwood, or trees. It is very agile, hopping and skipping about among the bushes, seeking for insects, rarely allowing itself to be drawn into hedges. It seldom alights upon the ground, and is always unwilling to leave its favourite places of abode. When it does so its flight is low and short. The call-note is a light cackle. The sojourn of this bird in the Delta in its spring passage is short, at most eight or ten days. I once observed it in the autumn (November 10th.) at Kordofan. Whether *Curruca passerina* of Brehm, with almost black outer tail feathers, belongs to this bird is, I think, doubtful. It ranges in Tripoli (Chambers), Algeria (Loche), Senegambia (Blasius and Keyserling), very common in Teneriffe (Bolle); South of Europe—on the banks of the Kur; Syria and Asia Minor."

The male in breeding plumage has the head, nape, and scapulars of a bluish lead-colour; upper parts of the wing and tail olive brown. The throat, crop, and flanks russet red, more or less strongly marked; middle of the belly whitish, mottled with bluish spots; a white line or moustache from the gape separates the grey of the nape from the red of the throat and crop. Under tail coverts white, shaded with russet; two outer feathers of the tail white on each side above and inside for three parts of their length, the two following only tipped with white; beak brown, reddish at the base below; iris yellow; legs and feet flesh-coloured. In autumn the upper parts are grey, more or less tinted with olive or russet; inferior parts of a less bright red, clearer on the flanks, and the abdomen whiter.

The female has the upper parts uniformly olive brown, with a tinge of bluish grey about the head and nape; the under parts much less red than in the male, but in my specimen the colour, which is a faintly reddish white, is more uniformly dispersed.

The young before the first moult have the superior parts, according to Degland, (whose descriptions are in general most accurate,) of a reddish ash; the inferior parts reddish, or a clear brown, with the middle of the abdomen white. Wings brown, all the coverts being broadly bordered with reddish; tail feathers brown, fringed with reddish ash, the external feather of each side bordered and terminated with whitish ash. In a young male bird sent me by M. Verreaux, the colours are very similar to, but fainter than those of the adult male; the abdomen is more mottled. In none of the specimens is the abdomen of a pure white.

My figures of this bird are from specimens sent me by M. Verreaux. The egg is from my own collection: it was taken by Dr. Krüper in Greece.

Figured by Temminck and Laugier, pl. col. 251, f. 2 and 3, (male and female;) Roux, Ornith. Prov., pl. 218, f. 1 and 2, (adults;) Gould, B. of E.



PLATE 13. THE BIRD.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SYLVIA. (*Latham.*)

BLACK-HEADED SARDINIAN WARBLER.

Sylvia melanocephala.

<i>Sylvia melanocephala</i> ,	LATHAM; 1790.
" "	TEMMINCK; Man., 1820.
" "	BONAPARTE; (B. of E.,) 1838.
" "	KEYSERLING AND BLASIUS; 1840.
" "	SCHINZ; Europ. Faun., 1840.
" "	SCHLEGEL; Revue, 1844.
" "	DEGLAND; 1844.
" "	MÜHLE; 1856.
<i>Motacilla melanocephala</i> ,	GMELIN; Syst., 1788.
<i>Sylvia ruscicola</i> ,	VIEILLOT; Dict., 1817.
<i>Curruca melanocephala</i> ,	LESSON; Ornith., 1831.
" "	Z. Gerbe; 1848.
<i>Pyrophthalma melanocephala</i> ,	BONAPARTE; Cons. Gen. Av.
" "	SALVADORI; F. d'Italia.
<i>Sardinian Warbler</i> ,	GOULD. BREE; 1st. ed.
<i>Bec-fin mélanocéphale</i> , or <i>Fauvette</i>	
<i>des frons</i> ,	OF THE FRENCH.
<i>Schwarzköpfiger Strauch-sänger</i> ,	OF THE GERMANS.
<i>Occhiocotto</i> ,	OF THE ITALIANS.
<i>Occhio Rosso</i> ,	SALVADORI.

Specific Characters.—Throat white; head black in the male, greyish black in the female; the secondary quills fringed with russet grey; the two external tail quills white on the outer side, with a large spot of the same colour at the extremity of the internal barb; the other tail feathers white only at the tip.

Length of an adult male sent me by M. E. Verreaux, five inches and a half; from carpus to tip two inches and three tenths; tail two inches and a half; tarsus seven tenths of an inch.

THE Black-headed Sardinian Warbler inhabits the south of Europe, the Canary Islands, Egypt, and, according to Degland, Asia Minor. It is also included in Captain Loche's Catalogue as inhabiting the three provinces of Algeria, and is mentioned by Mr. Salvin as one of the most striking species in Northern Africa. In Europe it is found along the shores of the Mediterranean, from Spain to Greece. It occurs especially in Sicily, Sardinia, Corsica, Tuscany, Dalmatia, and the southern parts of France and Spain. According to Nordmann, it is found in Bessarabia; and, according to Temminck, it is very common in the States of the Church at Castello, Palo, and Civita-Vecchia, where it breeds. Savi states that along the shores of the Mediterranean it is not found further inland than from eight to nine geographical miles.

Salvadori, "Fauna d'Italia," writes of this bird:—"We begin to find the *Occhio rosso* in Liguria, and it is very common in Tuscany, Rome, Naples, Sicily, and Sardinia. It has never been found in Piedmont, it is said to be found sometimes in Venetia, and accidentally in Modena. It seems to me that along the Adriatic coast it is found lower than upon the Eastern Coast of Italy. I have seen it rarely in the Marche. In Malta it often passes the winter, according to Wright, but I doubt the exactness of this observation, the *Occhio rosso* being stationary in all the other places where it is found. In Tuscany it occurs all the year round, and it is also stationary in Sardinia, where it is also found further inland. It frequents the hills covered with bushes. In Sardinia it often remains hidden among the impenetrable hedges of fig trees. The male bird has a beautiful song in spring. In winter it utters a rather sharp cry. It nests in the bushes. The nest is made of grass stalks and downy plants. The eggs, four or five in number, are whitish with obscure olive points, thicker and disposed crown-like towards the larger extremity."

Count Mühle informs us that it does not seem to prefer the neighbourhood of water, but stops preferably in low woods or sloping hills, where the ground is dry. It is also found in gardens, especially those which are enclosed with cactus hedges, in which it builds, and upon the fruit of which it feeds. Though living exclusively in the south, it appears capable of bearing cold well, as Count Mühle frequently observed it at Christmas apparently quite lively in the myrtle and whitethorn bushes.

Of its habits and nidification, Count Mühle further observes, that it has not only perhaps the greatest share of vivacity among the members of its family, but it is by far the most numerous, and hence its manners

and habits are best known. It is a restless and very lively bird, and hops continually through the low bushes, or flies from the under branches of low trees to a shrub, in pursuit of flies. It is not in the least shy of the neighbourhood of men, and may be observed all the year in gardens where people are constantly working. In the spring the male sings, while sitting on the outstretched twig of a bush, a feeble and not very melodious love-song; after ending which it creeps quickly back into the bush. The female is seldom seen, and consequently much less known than the male; its call is sharp, and similar to that of the Wagtails, or, according to Malherbe, during pairing time, like that of the *Cicadæ*.

The Black-headed Sardinian Warbler builds twice or even three times in the year, in a bush or low-hanging bough, not far from the ground, say from one to three feet. The nest is tolerably compact, and is ingeniously built of blades of grass, leaves, with soft woolly plant stems, spiders' webs, and cotton woven together; the inside lined with soft small straws and horse-hair. It lays four or five eggs in the first, and only three in the second brood. The egg is greenish grey, tolerably thickly marked with small spots, darker, and forming a wreath round the larger end.

This bird is an early breeder, as Mr. Savile Reid saw a young bird at Gibraltar on the 6th. of May. Mr. Reid further remarks in his notes:—"April 30th., 1872. The Black-headed Sardinian Warbler. These lively little birds were particularly lively in the Alameda. I saw at least seven or eight pairs as I walked through. This is the commonest Warbler on the Rock, and very plentiful on the western side. I have not observed it on the Mediterranean side. I saw a nest just built in Major Irby's garden on the 2nd. of April.....I found a nest of this bird near Sand's Magazine (Gibraltar,) on the 31st. of May, containing four eggs. The female sat very close, and was in a great state of mind while I was examining the nest. It was built in a pendant branch of a wild olive tree, (apparently a favourite situation for Warblers of this kind,) about twelve feet above the ground, and consequently at a much greater height than is usual with the species. The nest was made of dry bents and a few thin roots, neatly lined with fine grasses, a little down, and one or two long horse-hairs. The eggs were greenish white, blotched at the larger end with a darker shade of greenish grey, and freckled all over with an intermediate colour."

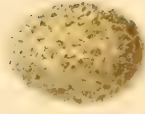
I have been favoured by my friend the late Mr. Edward J. Tuck, of Wallington Rectory, Baldock, Herts., with the following account of this bird, as observed by him in France:—" *Sylvia melanocephala* was

resident about Cannes, at least I saw it constantly from December to May. It was most common in the pine woods on the hills, which are very dry, and contain underwood of broom, juniper, etc. I used to see it also in the gardens nearer the sea, where it fed on the berries of the arbutus, which ripen well in that country, the shrub itself growing wild. I first heard its song on the 27th. of January, but it did not get into full song till March. Its manners are just like those of our Whitethroat in this respect, as the male will sing from a bush, and then dart off in a jerking flight into the air, still singing. They have also a rather harsh note, like the chut-chut of the Blackcap, but louder, and repeated more frequently. I did not find a nest till the 22nd. of April, when I saw one in a juniper bush, among some pines on broken ground, and much exposed. It contained three young birds and a rotten egg. The nest is much like that of our Common Whitethroat, being made of straw and dried bents of grass, with a few roots and pine twigs, lined with fine grass bents. The nest measured three inches and a half across the top; depth inside two inches. The egg is nine lines long by six wide; yellowish green ground, with several darker spots all over it. We watched the pair of old birds for some time, and saw both come with food for the young; and on one occasion, on going up to the nest, the female behaved as our Partridges do,—ran along screaming on the path, with her wings fluttering as if hurt—the only instance of this in small birds I have ever seen myself, although I have heard of it. I should suppose from the occurrence of this nest so early, they have two broods in the year.”

The adult male has the forehead, vertex, and back of the head as far as the nape, velvet black. This passes off gradually into the slate-blue grey of the rest of the upper parts; wings dusky black. The outer tail feathers bordered and tipped with white. The throat, belly, and cheeks bluish white, with the flanks darker. The first primary is short; the second, third, and fourth longer and equal in size. Eyelashes brick red; the naked and swollen eyelids cinnabar red. Beak, tolerably large and strong, is black. Iris nut brown; feet blackish brown.

The female has the whole upper parts of the body brownish grey; wing and tail feathers brownish black, with a somewhat brighter edge; the white of the external tail quill is shaded with russet and grey. Throat white, and rest of under parts of body whitish, tinted with greyish brown; the belly still darker. Eyelids and eyelashes yellowish red.

Degland remarks that specimens he received from M. A. Malherbe,



1. BLACK-HEADED SARDINIAN WARBLER.

2. SPECTACLED WARBLER.

killed in the neighbourhood of Gênes, were smaller than those received from the south of France. The colours were more pure, approaching to blue on the back, sides, and upon the silvery white in front of the neck and middle of the chest and belly.

This bird, originally known as "Black-headed Warbler," was called "Sardinian Warbler" by Gould in his "Birds of Europe." This certainly implies that it is *the* Warbler *par excellence* of Sardinia, which is by no means the case, as *S. sarda* has at least an equal right to be so called. I have therefore re-named this bird as the "Black-headed Sardinian Warbler."

My figure of this bird is from a specimen sent me by M. Verreaux. The egg is from my own collection. It was taken in Sardinia by "Kirtel," and sent to me by Donaziens from Switzerland.

The bird is also figured by Roux, Ornith. Prov., pl. 21; Bouteille, Ornith. du Dauph., pl. 24; Gould, in B. of E., pl. 129, as Sardinian Warbler; Dresser, B. of E.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SYLVIA. (*Latham.*)

SPECTACLED WARBLER.

Sylvia conspicillata.

<i>Sylvia conspicillata,</i>	DE LA MARMORA; Mem. della Acad. di Torino, 1819.
“ “	TEMMINCK; Man., 1820.
“ “	BONAPARTE; 1838.
“ “	KEYSERLING AND BLASIUS; 1840.
“ “	SCHINZ; Eur. Faun., 1840.
“ “	SCHLEGEL; Revue, 1844.
“ “	DEGLAND; 1844.
“ “	MÜHLE; 1856.
<i>Curruca conspicillata,</i>	Z. GERBE; Dict., 1848.
<i>Fauvette à Lunettes,</i>	OF THE FRENCH.
<i>Brillen Serauchsanger,</i>	OF THE GERMANS.
<i>Sterpazzola di Sardegna,</i>	OF SAVI.
<i>M' zizzee,</i>	ARABIC; (Salvin.)

Specific Characters.—The secondaries broadly fringed with red. The two outer tail feathers almost entirely white; the two next on each side only white at the point; first primary shorter than the fifth, but longer than the sixth; the second and third equal and longest. Length of an adult male, sent me by M. E. Verreaux, nearly five inches; carpus to tip two inches and a half; tarsus eight tenths of an inch.

THIS beautiful little Warbler was stated by Temminck, in his first edition, to belong exclusively to Sardinia; but, although limited in its range, it has been discovered in Sicily, Spain, in the States of the Church, and by Count Mühle in Greece. It is also included in



SPOTTED FLYCATCHER.

Captain Loche's Catalogue, by whom it is stated to occur in the three Provinces of Algeria.

M. O. Salvin, in the "Ibis," for July, 1859, mentions its occurrence in the Salt Lake districts of the Eastern Atlas of Africa, where it is found abundantly in the low shrubs of the uncultivated portions of that region. He states that it is very shy, and skulks from bush to bush as any one approaches. Malherbe remarks that it only breeds in Sicily, migrating in the winter; but Count Mühle doubts this statement, as he has frequently seen it in winter in Greece, in company with *S. melanocephala*. This Warbler was discovered by Marmora, in Sardinia, in 1819, and named by him *S. conspicillata*, from a black "spectacle"-looking mark between the eyes of the male bird.

Salvadori ("Fauna d'Italia") says:—"This species resembles a good deal *Sylvia cinerea*, so much so that Glöger calls it a simple variety of this bird, which I can only concede to him in a Darwinian sense. It is much smaller, and is distinguished by the hazel-coloured margins of the secondary wing feathers, and the larger wing coverts; also by the deeper ashy tint of the head, by the flesh-colour of the under parts being much brighter, and by a different geographical distribution.

This graceful bird is found especially in Sardinia and Sicily, but Calvi and Durazzo have found it in Liguria. I only found three individuals in the Roman market in April, 1853. Cantaine had previously found it in the neighbourhood of Civita Vecchia, near Trajan's Baths, and in the uncultivated plains at the foot of the hills of the Campagna Romana, (Temminck.) It is probable that it is found along the whole Mediterranean coast of Italy. In Malta it is sedentary, (Wright.) It is very common in Sardinia, especially the southern parts. It arrives in very great numbers the beginning of April, at which time I have seen many in the neighbourhood of the coast near Cagliari, while a few days previously there were none. They nearly all leave in autumn. During three winter months which I passed in Sardinia, after searching very carefully, I only found one. They love places covered with bushes, amongst which they go on hiding and jumping about with great ability, sending out from time to time a sharp *cìè, cìè*. Sometimes the male bird sings very well. It makes its nest in the bushes, and upon the cisti which cover so much of the ground in Sardinia. The nest is like that of the Whitethroat. Eggs, five in number, are greyish white with rosy points hardly perceptible, which are darker and thicker near the larger end."

According to Savi, the Spectacled Warbler dwells in Italy, among the cistus bushes on the hills, but never in shady places. In Sardinia

it inhabits the bush-covered hills, from four hundred to six hundred feet above the sea level. It is a very nimble bird, rivalling the Sardinian Warbler, with which it is frequently found, in this respect. Count Mühle tells us that it sings perched on an open branch, with its feathers raised, and that its song is simple, but loud and agreeable. Its call and song-note resembles much that of the other species in the family; in fact it is so closely allied that it has frequently been confounded with *S. sub-alpina*, and has even been considered by some only a southern variety of *S. cinerea*. It is however easily distinguished from the latter by its smaller size, by the lunettes over the eyes, and by the general greater distinctness and purity of the colours. I am however at a perfect loss to imagine upon what grounds it can be separated from the "Whitethroats," and formed into a distinct genus.

The Spectacled Warbler builds in March, in low bushes, about a foot from the ground. The nest is in the shape of a blunt cone, and tolerably thick and compact. It is formed of dry grass stems, coarse plant stalks, much down of seeds, and sometimes spiders' webs, and is lined with small roots and human as well as horse-hair, (Mühle.) The outside as well as the inside is constructed with especial care. The delicate eggs are four, rarely five, in number; ground colour pale greenish grey, with fine spots, greyish and greenish grey, sometimes thicker towards the base.

Mr. Savile Reid records in his notes of this bird at Gibraltar:—"Not uncommon at the foot of the hills in the neighbourhood. In their movements they resemble *S. melanocephala*, being exceedingly lively and restless. Their song is very short and sweet, resembling somewhat that of the Goldfinch. It is uttered from the top of a small shrub or bunch of heather. I found a nest of five eggs about the first week in May. They were of a dirty white, freckled all over with greenish blotches, (Bree's figure is very good.) My horse nearly trod on the nest, which was in a little bush close to the ground, built compactly of dry grasses and down from flower seeds, lined with hair and fine roots. I visited the spot several times again, but to my great disappointment could never find the nest again, so well was it concealed, and so similar was one bush to another on the scrub-covered plain."

Major Irby writes:—"This bird is migratory, arriving in Spain with its congener the Common Whitethroat. It is common, and frequents dry scrubby ground."

Mr. A. B. Brooke, writing about the Ornithology of Sardinia, in the "Ibis" for June, 1873, remarks of this bird:—"Very common in all

the uncultivated parts of the plains, where it is found in company with *C. melanocephala* and *M. sardus*; but I have never seen it on the hills. It is, I think, the most shy of all the Warblers. During the months of April and May, the male may generally be seen perched on the highest twig of cistus, forty or fifty yards off; but the moment one tries to approach any nearer, it flies off low over the ground, lighting again in a similar situation; and this is repeated time after time in the most tantalizing manner. I do not think all, if any, of these Warblers migrate in the winter, as I have seen as many early in March as at any other time of the year. Excepting during the spring they are very hard to see, always keeping in thick cover; and unless come upon unawares, they creep away through the twigs, close along the ground, without showing themselves. The young birds are able to fly by the middle of May; they have much broader rufous edgings to the feathers than the old birds. Their song is short and pleasant; and the males are often seen flying up in the air, returning and lighting again on the same spot—a habit so characteristic of the Common Whitethroat, to which this species appears to bear a remarkable resemblance both in colouration and habits.”

In the adult male in breeding season, the vertex and cheeks are ash grey; the whole upper part of the body greyish russet, more or less marked; throat white; the rest of the inferior parts red, tinged with grey, clearer on the belly; lores and eyebrows black; cheeks white; wings blackish, with the coverts broadly fringed with lively red; tail dark brown, with the two internal barbs of the external quills white; a small and sometimes a large spot of the same colour on the extremity of the last, and a small spot on the third; beak, yellow on the borders and the basal half below, the rest blackish; feet yellowish; iris brown.

The male in autumn has the head of a less pure ash-colour; neck and mantle grey, with the feathers bordered with russet; throat white; lower part of neck bluish ash; crop and flanks red; middle of stomach whitish.

The adult female has the top of the head dark ash grey, while the black “spectacle” mark over the eyes is either less distinct or wanting. Scapularies, rump, and upper tail feathers olive brown; wings brown, with the coverts broadly fringed with russet; the uppermost feathers of the secondaries bright russet, with a conspicuous black longitudinal mark in the centre; throat greyish white; rest of inferior marks of body russet, lighter in the centre; under tail coverts white.

The young before the first moult are of a red ash-colour above,

with the throat and neck ashy white; the body below is of a reddish ash-colour, with tints lighter in the middle of the abdomen; wings brown, with the coverts largely bordered with red; tail equally brown, with the quills fringed and terminated with reddish ash, and the inferior half of the one most external on each side white.

The figure of this bird is from a skin in my own collection, taken by Dr. Leith Adams in Malta. The egg is from a specimen sent me by M. E. Verreaux.

Figured also by Temminck and Laug., pl. col. 6, f. 1, old male in breeding plumage. Roux, Ornith. Prov., pl. 217, female under the name of Passerinette; Gould, B. of E.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus SYLVIA. (*Latham.*)

MARMORA'S WARBLER.

Sylvia sarda.

<i>Sylvia sarda,</i>	MARMORA; Mem. della Acad. di Turin, 1819.
“ “	TEMMINCK; Man., 1820.
“ “	BONAPARTE; Birds, 1838.
“ “	KEYSERLING AND BLASIUS, 1840.
“ “	SCHINZ; 1840.
“ “	SCHLEGEL; Revue, 1844.
“ “	DEGLAND; 1844.
“ “	MÜHLE; 1856.
“ <i>sardonis,</i>	VIEILLOT.
<i>Melizophilus sarda,</i>	GERBE; Dict., 1848.
<i>Pyropthalma sarda,</i>	BONAPARTE; Consp. Gen. Av.
<i>Fauvette sarde,</i>	OF THE FRENCH.
<i>Sardinischer Strauchsanger,</i>	OF THE GERMANS.
<i>Occhiocotto sardo,</i>	OF SAVI.

Specific Characters.—Tail wedge-shaped; the outer feather, half an inch the shortest, has a fine line upon its outer edge white; the rest of the tail feathers unicolorous. General colour smoky brown. Length of adult male sent me by M. Verreaux, five inches and three tenths; from carpus to tip two inches and three tenths. Tail two inches; tarsus nine tenths of an inch.

THIS Warbler, though supposed to occur in Africa, has at present a known range limited to Sardinia, Sicily, and the south of France. It is said by Mühle to breed near Palermo; and Thienemann says

that it is always found in company with *S. provincialis*, the Dartford Warbler. It was discovered by Marmora, in 1819, and is not unlike in plumage *S. melanocephala*, having the same naked ring round the eyes; it may, however, be distinguished by the specific characters given above; in addition to which the beak is more slender and weak; the general colour has a more smoky tinge; the throat is also ash-grey or darker, instead of white, so that the two birds can never be confounded. Of its habits we know very little, and what we do know of them differs but slightly from those of the Dartford Warbler; its call-note is said to be a sharper and rougher cry. Mr. Howard Saunders says that he saw this bird in Spain, but was unable to capture it. Being so similar, however, to the Dartford Warbler, we cannot upon mere sight give it a Spanish locality.

According to Thienemann, its nest and eggs are similar to those of the Dartford Warbler. Degland says it builds in bushes a short distance from the ground, making a deep well-constructed nest, in which it deposits from four to six eggs, of a dirty white, slightly yellowish, with spots grey and reddish, thicker about the greater end; great diameter sixteen, small twelve millemetres.

Mr. A. B. Brooke, in his paper in the "Ibis" (before quoted) for June, 1873, thus adds to our knowledge of this bird:—"This interesting little Warbler is very common on all the uncultivated parts of the plain, where the undercover (consisting chiefly of *cistus*) does not grow very tall or thick, but is scattered sparingly; and I have never seen them in the woods. They are, as far as my observations go, entirely confined to the plain, rarely, if ever, wandering even to the adjoining low hills, where their place seems to be taken by *M. provincialis*, a very allied species. I have only on one occasion met with these two species on the same ground. *S. sarda* is a bold little bird, often hopping and creeping about confidently within ten yards, trusting to escape observation by its diminutive size, dusky colour, and quiet unobtrusive habits. Their flight is feeble and wary, rarely extending any distance; and on alighting it is often hard to see them again, as they creep off close to the ground along the stems of the *cistus*, and by the time the spot they disappeared in is reached they are thirty or forty yards off, perhaps in an opposite direction. They sing either perched on the top of the *cistus*, or frequently in the air, jerking themselves down again into the bushes. Their song is very like that of the Dartford Warbler, (*S. provincialis*;) but I do not think it quite so grating; their alarm-note is a single short *tick*, unmistakeable when once heard.

"I was unfortunate in never being able to find a nest, owing to

the density and vastness of the undercover; but on the 19th. of May I came upon a brood of five or six young birds just able to fly, from which I secured some interesting specimens. They differ from the old ones in being a much paler brown all over, their irides and legs the same colour: in adult birds the irides are a yellow brown, the legs a light orange yellow. *S. sarda* can always be easily distinguished, even when flying, from all other Warblers by its uniform dark dusky colour, and more especially from *C. melanocephalus*, (with which Dr. Bree thinks it may be confounded,) not only by its smaller size, but by the almost entire absence of the white edgings on the outer tail feathers, which the latter shows very conspicuously when flying. Dr. Salvadori, in his late work on the birds of Italy, mentions Corsica and Sicily as localities where this bird is found."

The following are Salvadori's remarks in the "Fauna d'Italia:"—"Common and stationary in Sardinia, Corsica, and Sicily. According to Calvi and Durazzo, a few individuals are sometimes taken in Liguria, which appears, however, doubtful, since Negri during very many years never met with it in the neighbourhood of Geneva. Also the Marquis Giacomo Doria wrote to me that he has the conviction, if not the certainty, that this species must not be retained among Ligurian birds. This is the bird which is more commonly found in Sardinia. It inhabits the mountains as frequently as the plains, but always where the ground is covered with the *Cistus monsteliensis* and *Erica*. It is especially found on the hills covered with those plants. I have never found it in the large oak plantations. When hidden among the bushes, it jumps from bush to bush, and runs along the ground, so that it is difficult to see, as the cisti are close together. Sometimes one is seen rising up into the air three or four yards from the earth, and then sinking down to hide itself among the plants, or to rest for a minute upon some stem a little higher than the others, from which, especially in spring, its graceful song may be heard. In the winter, on the contrary, when it remains hidden among the bushes, it may be known by a cry, repeated at short intervals, and which may be expressed by the syllables *ciè-ciè*, pronounced with the *è* long. When it remains hidden in a thick bush, it is very difficult to make it fly, and when it does so, it goes off with great rapidity and to a considerable distance. It nests in the bushes. The nest resembles that of the Dartford Warbler. The eggs, four or five in number, are whitish, with grey or rosy spots, rather closer near the larger end. Doderlin says that this species arrives in Sicily in April and May, and does not go back in the autumn. He found an individual in November, and I believe that it is stationary in Sicily as in Sardinia."

Doderlin ("Avifauna del Modenese e della Sicilia,") says of this bird:—"That this Warbler is rare in the northern provinces of Sicily Benoit attests also. It arrives from Africa in April and May, and keeps on the shores of the sea, among the bushes, and goes away again in the autumn. It is rather more common in the southern provinces. In November, 1864, a few specimens were met with on the hill near Mazzare, and others were killed during the autumn of 1870 in the neighbourhood of Vittoria, and in Terra Nova, where Malherbe as well as myself agree that they nest in the summer. According to Salvadori, this is the most common species of *Sylvia* in Sardinia."

An adult male, sent me by M. E. Verreaux, has all the upper parts of a uniform smoky brown, darker about the eyes. Throat dark ash-grey; belly and flanks pinkish, mottled with grey, approaching to black; primaries dark hair brown; tail cuneiform, with the outer quills finely edged with white; colour of the under parts of the tail lighter; beak yellow, black for one third from the point; border round the eyes cinnabar red; iris nut brown; feet yellow.

The female is generally paler in colour than the male, and the throat and belly more ash-coloured.

Figured by Temminck and Laugier, pl. enl. 24, f. 2, adult male; Gould, B. of E.; Dresser, B. of E.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus HYPOLAIS. (*C. L. Brehm.*)

Generic Characters.—Bill stout, very wide at the base, the edges straight; somewhat compressed towards the tip, which is slightly emarginated. Nostrils basal, oblique, oval, and exposed. Wings rather long and pointed, the first quill very short, the third usually the longest. Tail moderate, rounded, square, or slightly forked. Legs with the tarsi short, the feet small, and the claws short, but much curved.

OLIVE TREE WARBLER.

Hypolais olivetorum.

<i>Hypolais olivetorum,</i>	Z. GERBE; Revue Zool., 1844-6, Dict. in Hist. Nat., 1848.
“ “	DEGLAND; 1849.
<i>Sylvia olivetorum,</i>	STRICKLAND in GOULD'S B. of E., p. 109, 1836. BREE; 1st. Edition.
“ “	TEMMINCK; Manual, 1840.
“ “	MÜHLE; 1856.
<i>Calamoherpe olivetorum,</i>	BONAPARTE'S List, 1838.
<i>Chloropeta olivitorum,</i>	BONAPARTE; Gen. Consp. Av.
<i>Salicaria olivetorum, ?</i>	KEYSERLING AND BLASIUS, 1840.
“ “	SCHLEGEL, 1844.
<i>Bec-fin des oliviers,</i>	OF THE FRENCH.
<i>Oliven Rohrsänger,</i>	OF THE GERMANS.

Specific Characters.—Plumage above shaded with olive brown; wings in repose do not quite reach to half the tail; first primary equal to the second and fourth, third longest; beak broad and compressed sideways anteriorly, the tip having a tooth-like or notched curve.

Length six inches five lines; wings from carpus to tip three inches and two lines; tail two inches and a half; beak from gape nine lines and three

quarters, breadth of it at angle four lines; middle toe five lines, claw of the same two lines and a half; hind toe three lines and a quarter, claw of the same three lines.—SCHLEGEL.

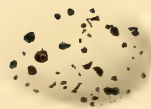
THIS elegant species was discovered by our lamented countryman Strickland, in the Island of Zante, in 1836, and described and figured in Gould's "Birds of Europe."

Count Mühle, in his monograph of the European *Sylviidæ*, has placed this bird, *S. elaica*, and *S. hypolais*, (Latham's Pettychaps,) in a distinct section, namely, that of *Polyglottæ*, or Mockers, in consequence of the notes of some other birds discovered in their song. Temminck placed *S. olivetorum* among his Riverains, and Keyserling and Blasius, and Schlegel, among the *Salicaria*. But Count Mühle remarks that it must be without hesitation placed near *S. hypolais*, the *Hypolais polyglottæ* of Selys-Longchamps, Gerbe, and Degland, (Latham's Pettychaps,) and consequently included in this group, forming, with *S. icterina*, the genus *Hypolais* of Gerbe.

Sylvia olivetorum has at present only one European locality, that of the olive plantations of Greece, where, however, it appears to be by no means rare. In the second volume of Naumannia, part 1, page 77, it is included in a list of birds observed in the neighbourhood of Tangiers, and is said to breed there. According to Lindermayer it appears in Greece at the end of April and the beginning of May, and leaves again early in August. It has been conjectured by Baldamus, in "Naumannia," part 2 for 1853, page 166, that this bird, though so long unknown, does actually exist in the whole of the south of Europe. But Count Mühle remarks upon this statement that if true, it must have been discovered, as no country has been so well investigated by distinguished ornithologists as Italy.

Canon Tristram thus announces his capture of this bird near Lake Halloula, in North Africa, ("Ibis," 1860, p. 156):—"However, on the way I shot *Sylvia olivetorum*. There were several birds, and I afterwards obtained a nest. The eggs are exactly like those of *S. pallida* or *S. elaica* in colour, but larger, and the nest is much inferior in neatness. A month after I took a nest of this bird placed near the ground in brushwood. It appears to select a lower site for nidification than its congeners."

The Olive Tree Warbler is described by Count Mühle as a brisk lively bird, teasing and pecking its companions with as much pertinacity as its congener, *S. hypolais*. It lives only in olive plantations, is very shy and difficult, I am happy to say, to kill. Hence specimens are fortunately scarce, and I have been content to give a copy of Count Mühle's excellent



1. OLIVE TREE WARBLER
2. OLIVACEOUS WARBLER. 3. PALE WARBLER.

figure. When its song betrays its whereabouts, it can hardly be distinguished from the shining olive trees, being like them, above greenish grey, below whitish—a beautiful adaptation, and one frequently met with, by which nature seems to protect her living creatures from the ruthless and often cruel and wanton destroyer.

It moves constantly about among the trees, and carefully shuns water-reeds and bushes.

It builds in the olive trees, and fastens its nest to a branch, having a twig going through it. The nest is pretty substantial, being formed of grass and lined with thistle-down, which makes it warmer, while it is even more elegant than that of most other Warblers.

The eggs are three or four in number, long oval, grey, with a rosy reddish gloss, which wears out when the egg is kept, and dark brown large angular spots, between which are scattered small dots. Count Mühle supposes they only breed once in the year.

Brehm, in Bädcker's work on European eggs, gives a description in all essential particulars the same as that above. He says, "The nest is built with dry grass blades and panicles, with down of plants woven throughout, and lined with spiders' webs, small rootlets, and horse-hair, or thistle-down. The nest is exposed to view on a small branch of the olive tree; it contains four eggs, laid in the end of May or beginning of June, which are of a dull rosy red, on a grey ground, with black grey spots, and blackish dots and scrolls.

I take the description from Count Mühle.

"This bird is, when seen flying, in shape and plumage like *Sylvia orphea*, or *nisoria*, in their spring dress, from both of which, however, it is distinguished by its strong beak, broad at the root, having the upper mandible horn-colour, and the lower orange yellow. The head and the whole of the upper parts of the body are grey, tinted with olive, which especially predominates on the upper tail coverts. A distinct conspicuous streak of greyish white from the nostrils to the eyes. The chin, root of lower mandible, and especially the upper mandible, between the nostrils and the angle of the mouth, clothed with bristly hairs. The wings grey black, with a greyish gloss or polish on them; the lesser coverts have broad greyish borders.

The other feathers of the wings edged with white, which forms a large border on the primaries and great posterior coverts. The tail is slate grey, underneath paler; the first quill bordered with white, the second with a white spot at the end, and white edge on the inner barb; the third and fourth have only a small whitish spot at the tip. The whole under part of the body is white, with a

yellowish tint, the sides greyish; under tail coverts whitish; eyebrows white; iris nut brown; feet lead grey, with horn-coloured claws. Tarsi furnished in front with nine very distinct plates, of which the third, fourth, and fifth are largest, though the length of each does not exceed two lines."—Schlegel.

The young before the first moult, which occurs after they leave Europe, are strikingly like the young of *S. nisoria* and *S. orphea*, but they may be readily distinguished—in addition to the already noticed characters of the formation of the beak—from *S. nisoria*, by the uniform olive grey tint of the upper part of the body, which in the latter bird is clear grey, and on the back slate-coloured. The second and third primaries of *S. nisoria* are also of almost equal length, but in *S. olivetorum* the third is considerably longer than the second. From *S. orphea* they may be distinguished by the under tail coverts and belly in *S. orphea* being tinted with rust yellow, while in the young of *S. olivetorum* the tint is greyish.

This bird has been figured by Gould, B. of E.; by Count Mühle, in his *Monographie der Europäischen Sylvien*; and by Mr. Dresser in his *Birds of Europe*, but the bird appears to the eye too large.

The egg is figured from a specimen in my own collection, and was taken in Greece by Dr. Krüper.



INSECTIVORÆ.

Family SYLVIIDÆ.

Genus HYPOLAIS. (*Brehm.*)

OLIVACEOUS WARBLER.

Hypolais elaiica.

<i>Hypolais elaiica,</i>	Z. GERBE; Revue Zool., 1844, p. 440, 1846, p. 434; Dict. d'Hist. Nat., 1848, tome xi., p. 237.
“ “	DEGLAND, 1849.
<i>Salicaria elaiica,</i>	LINDERMAYER; Isis, 1845, No. 5, p. 242; Revue Zool., 1843, p. 210.
<i>Ficedula ambigua,</i>	SCHLEGEL; Revue, 1844.
<i>Sylvia elaiica,</i>	MÜHLE, 1856. BREE, 1st. Edition.
<i>Bec-fin Ambigu,</i>	OF THE FRENCH.
<i>Oelbaum Spötter, or</i> <i>Zweidentiger Laubsänger,</i>	OF THE GERMANS.

Specific Characters.—Plumage above shaded with greyish; wings in repose reach scarcely to middle of tail; first primary short, longer than the upper coverts, second and fifth equal, third and fourth longest, and equal.

Dimensions of two specimens sent me by M. E. Verreaux.—One from Greece: from tip of beak to end of tail, five inches; length of beak seven-tenths of an inch; breadth at base three-tenths of an inch; wing, from carpus to tip, two inches and a half; tarsus four-fifths of an inch; tail two inches. One from Algeria: from tip of beak to end of tail, five inches and a half; wing from carpus to tip, two inches and seven-tenths; tarsus nine-tenths of an inch; tail two inches and three-tenths.

THIS is the second Warbler peculiar to the olive groves of classic Greece, that has been made known to science within the last twenty or twenty-five years. Strickland's discovery of the bird last described

in 1836 led to that of the present species, by Dr. Linder Mayer, in 1843. Count Mühle remarks that from these events we may conclude that many birds, especially such as from their trifling size and colouring of the plumage so readily escape observation, remain yet to be discovered. During his residence in Greece, though anxiously examining the birds of that country, this species escaped his observation.

The Olivaceous Warbler is at first sight very like the Olive Tree Warbler; but if we examine the dimensions which afford us such valuable means of differential diagnosis, we shall find a full inch difference in size. Its plumage is also altogether more of a yellow tint than that of its congener. It inhabits, however, the same localities, the olive plantations of Attica, where it also arrives late and departs early.

Salvadori ("Fauna d'Italia,") says:—"This species resembles greatly in its colouring *Acrocephalus palustris*, from which, however, it is easily distinguished by the different form of the tail, which is blunted in *H. elaica* and graduated in *A. palustris*. Signor Magnigriffi asserts that in April, 1863, he met with a flock of this species along the river Magra, in the Eastern Riviera. They appeared to be feeding upon gnats and other insects, which in this season frequent the willows and tamarisks. I have seen one of the two he killed in the Pisa Museum."

Count Mühle informs us, that, like the Olive Tree Warbler, it takes up its abode in the tops of the olive trees, and is never seen elsewhere. As volatile and restless as its congener, it is yet still more shy, flying, as if in terror, from one tree to another; but after a certain time returns quickly to its first resting-place, and thus it deludes those who design its capture, or the discovery of its nest.

Its piercing shrill cry may be heard repeatedly from its retreat; and it is continually engaged, with restless eagerness, in driving away every rival or feathered intruder from the sanctuary of its abode. Its song is not so unmelodious as that of the *Sylvia olivetorum*, and is more like that of other members of its family, as *S. hippolais*, the Melodious Willow Wren, or Latham's Pettychaps, of British naturalists. It is also, like the Olive Tree Warbler, very difficult to capture, keeping constantly at the top of the olive trees, hopping and gliding among the foliage, which has the same colour as itself.

The Olivaceous Warbler builds in the middle of May, in the same situations, and a similar nest to the Olive Tree Warbler. The nest is, however, smaller and less industriously made, though the materials are the same. It lays four or five eggs, pale grey green,

without any shining glossy flush, covered with large black or small greenish black spots.

Brehm, in Bädeler's work, remarks of this species:—"It is an inhabitant of Greece, smaller than the Olive Tree Warbler, and of a duller plumage. It builds its nest of strips of inside bark and fibres of roots, with thistle down, and lines it with spiders' web. It lays, beginning of June, five eggs, smaller and duller in colour than those of the Olive Tree Warbler. Ground colour grey white, scarcely at all tinted with reddish, and marked with violet spots, and blackish and brownish points and small dots, sometimes only at the base, but at other times scattered over the whole egg."

The adult male and female have the head and all the upper parts of the body pale greyish brown, with an olive tint, more indistinct on the lower part of the back; a yellowish streak from the nostrils over the eyelids; on the angle of the mouth and chin, some blackish hairs. Wings and tail greyish olive brown; the third, fourth, and fifth primaries have the outer web compressed or narrowed near the tip. All the wing feathers finely bordered with greyish. Tail narrow, and notched centrally, is greyish brown; the outer quill edged with white, the second and third only on the inner web. The whole under part of the body is whitish yellow, darker in front of the chest; flanks pale yellow, tinged with olive brown; under tail coverts white. Beak above horn-colour, below pale orange yellow; feet and claws dark brown.

The bird figured is from a European specimen sent me by M. E. Verreaux. The egg is from my own collection, and was taken by Dr. Krüper in Greece.

Figured by Count Mühle, in his *Monographie der Europäischen Sylvien*, bird, nest, and eggs, the original of which were taken by Dr. Lindermayer, and are now in the museum at Ratisbon.

A PALE variety of *Hypolais elaica*, found in North Africa and Spain, has been raised to specific distinction by ornithological writers. I shall content myself by figuring the bird and its egg on the same plates as those of *H. elaica*, and adding a few observations.

In 1859, Canon Tristram, on the Ornithology of Northern Africa, ("Ibis," p. 419,) remarks:—" *Hypolais pallida*, Gerbe, (Pale Warbler.) Is not this identical with *Sylvia elaica* of Lindermayer? It is found in the marshes about Tuggart in considerable abundance, and I have taken many nests south of the Atlas."

In the following year, 1860, the editor of the "Ibis" translates

from the "Bulletin de la Société Impériale des Naturalistes de Moscow," part of a paper by Baron R. König-Warthausen, on the nesting of the Warblers of the division *Hypolais*, from which I copy the following:—"The notes on *H. pallida* (of which species little was known before) are somewhat as follows:—

"Von Heuglin found this bird, which is also an inhabitant of Syria all the year through, in north-east Africa. The skins collected by him in Egypt, as well as his observations on its habits, agree fully with Ehrenberg's. A variety with a stronger beak was found southwards in Nubia.

"He, as well as Blasius, believes in the possibility of the identity of this species with the Grecian *H. elatica*; but I do not hesitate to consider them as different for the present, because the question is not yet settled, and moreover two Egyptian nests, each with four eggs, (for which, as well as for the observations here given, I have to thank Dr. Heuglin's kindness,) are somewhat different from those of the latter species, whether specifically or climatically need not at present be settled.

"This Warbler, which was formerly united with the Reed Warblers, delights mostly in the hedges of gardens, or in the thick mimosa bush, if *Arundo donax*, its favourite resort, is not far off.

"The nests are placed from two to fifteen feet high. Both mine are from Cairo itself—from the Especchia Place."

The nests are composed of strips of bass and dried stalks, mixed with woollen threads and horse-hair, and lined with fine tendrils of plants, with some mimosa leaves fixed on the outside.

"The eggs had a ground-colour of dark violet grey, sometimes greenish white; some are sparingly but uniformly spotted with minute freckles of blue grey and black; others with larger round or irregular blotches, partly obliterated; others again with a rather light ground, and almost entire absence of the bright under-markings, are provided with larger dark red-brown points, and obsolete blotches of bright red brown.

"In the structure of the shell they come very near to those of the preceding, *H. elatica*; yet the granulation of most of them is decidedly more elevated and finer. Keeping this point in view, along with their less weight, smaller size, and more greyish ground colouring, it would not be difficult in most cases to separate the eggs of the African form from its Grecian ally."

Lieutenant-Colonel Irby writes to me that *H. pallida* occurs at Gibraltar, and that *H. elatica* is not found in the south of Spain. He also adds, in another letter, *Hypolais pallida* is a good species,

found here and in Morocco—*elaica* not occurring that I am aware of.

Mr. Dresser has figured and described the bird under the name of *Hypolais opaca*, stating at the same time that *pallida* is wanting for *elaica*. Lichtenstein, it appears, labelled a specimen from Senegambia in the Hein Museum as *Hypolais opaca*, but did not describe it. This was in 1851. Gerbe the following year described the bird as European by the name of *Hypolais pallida*, ("Rev. et Mag. de Zool.," p. 174.) Since this date, twenty-two years ago, the poor bird has had three other names assigned it, viz: *canescens*, *ariquois*, and *fuscescens*. Mr. Dresser now makes confusion more confounded by changing the name of one bird, and giving its well-known scientific designation to another, which is so closely united that I have declined to separate them. This is making us pay very dear for what is called priority of nomenclature.

A fine female specimen, sent me by Mr. Howard Saunders—and as the sexes differ but little, this is the bird I shall figure—has all the upper parts of a pale rusty-tinged olive-colour, except the wings and tail feathers, which are brown, with the inner webs margined with white, more slightly on the primaries. All the lower parts pale grey, except the tail and lining of the wing, which are slaty brown, the under wing coverts being white. Wing short, second and third true primaries equal, and longest in the wing; first true primary equal to sixth; bastard primary one third the length of the first true one. Total length five inches and a half; carpus to tip two inches and three quarters, nearly; tarsus one inch; tail from vent two inches and a quarter; bill four fifths of an inch; breadth of base of under mandible one fifth of an inch.

The figure of the bird is from a specimen kindly sent me by Mr. Howard Saunders. The egg is in my own collection, being one of a nest of four taken by Mr. Saunders in Spain. It has been described, but, at the time I am writing, not figured, by Mr. Dresser in his "Birds of Europe."

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus HYPOLAIS. (*Brehm.*)

POLYGLOT WARBLER.

*Hypolais polyglotta.**Hypolais polyglotta,*

“ “

VIEILLOT. SCHLEGEL.

DES MURS; I. O., pl. 57, 1. Nec

DE SELYS.

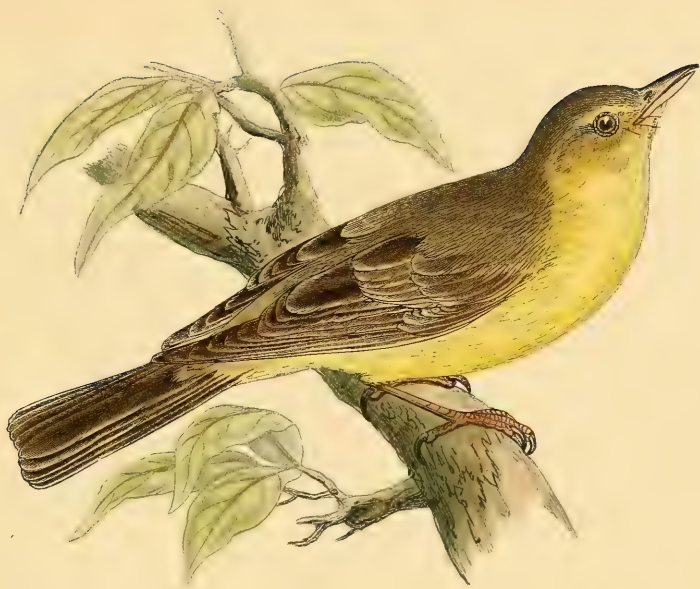
Sylvia hypolais,

GERBE.

Specific Characters.—Wing does not reach to middle of tail; second true wing primary the longest in the wing. Length four inches and three quarters.

THIS bird has been much confounded with *Sylvia icterina* of Vieillot, inserted in the first edition as Vieillot's Willow Warbler. The latter having been taken in England, has been figured as a British bird by Gould and Yarrell, and therefore is omitted here. The two birds are, however, structurally distinct. *S. polyglotta* is the smaller of the two, has a shorter wing which does not reach the end of the upper tail coverts, and the first true wing primary is equal or nearly equal to the fifth; while *S. icterina* may be distinguished from all other similar species by the second true primary being shorter than the third, and about equal in length to the fourth. The wing of *S. icterina* also reaches beyond the middle of the tail, and these distinctions are constant in both male and female.

The Polyglot Warbler is abundant in Morocco, Spain, and south-west of France, is rare in Italy and Switzerland. The large species, *H. icterina*, occurs at Malta and in Italy, and breeds all over Germany and Holland, and has been taken in England. Thus the two



congeneric birds seem to replace each other in the south of Europe, as many other closely-allied species do.

Doderlin, "Avi-fauna del Modenese e della Sicilia," says of this bird:—"Finding myself shooting in November, 1864, in a clump of canes and reeds, between Castelvetro and Campobello, near Mazzara, I killed a small *Sylvia*, with the belly partially coloured yellow, and the mantle of a grey green. Beak rather depressed at base, which I at first thought was a young *H. icterina*. I prepared it, notwithstanding; but when I arrived at Palermo, and compared it with individuals of various ages of *H. polyglotta*, which I had had from Modena and Sicily, I convinced myself that it was *H. polyglotta*.... This bird lives preferentially in the bushes near ruins, and in watery grounds in the southern parts of Europe.

As this bird is common in the olives of Greece, in the Ionian Islands, and in the South of Europe, it would not be impossible were it sometimes found in Sicily, where the climate is soft, and the culture of the olive esteemed. However, up to date it has not been recorded from thence, probably because it so much resembles its congeners."

I cannot do better here than quote the following remarks of Canon Tristram, from his paper on the Ornithology of Palestine ("Ibis," 1867, p. 81):—"The key to the specific distinction of all the species of *Hypolais* is the relative length of the bastard primary. In *H. olivetorum*, the largest of the genus, it is extremely small, only reaching half the length of the outer tetrices. In *H. icterina*, *H. upcheri*, and *H. obscura* of South Africa, it is the same length as the tetrices. In the smaller species, *H. polyglotta*, *H. elaica*, and *H. pallida* of North Africa, it is considerably longer."

It is difficult to define the exact geographical range of this bird in consequence of the term *hypolais* having been used to designate *S. icterina* as well.

In a Dutch work, entitled "Bijdragen tot de Dierkunde nitgegeven door Het Koninklijk Zoologisch Genootschapp, 1851," is an excellent paper by Schlegel, entitled "Observations sur le Sous-genre des Pouillots (*ficedula*) et notamment sur le Pouillot lusciniolé, *Sylvia polyglotta* de Vieillot," from which I extract the following:—

"The following species vary in several points from the preceding, (*rufa*, *Bonelli*, etc.) We will first mention the one usually called *Hypolais*. This species inhabits a great part of Europe, but it is never found in England, and in France it is replaced in many localities by the following one (*S. elaica*.)

"It is generally supposed that Linnæus had this bird in his thought

in establishing his *Motacilla hypolais*. It is the *Sylvia hypolais* of all the German authors since Bechstein—of Temminck and Nilsson. The Prince de Canino and Gould have figured it under this epithet, but the latter at first designated under this name, like most English authors, *Sylvia rufa*. None of Vieillot's works authorise us to admit that he had known or distinguished the species; on the contrary, considering the *hypolais* of the German authors as identical with his *Fauvette lusciniolæ* or *polyglotte*. M. Gerbe made a similar mistake, giving the name of *hypolais* to Vieillot's *fauvette*; he thinks he has discovered in *Hypolais rufa* a species unknown to modern naturalists, and which he refers, very *mal apropos*, to the pretended species described by Vieillot under the name of *Fauvette icterine*.

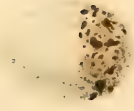
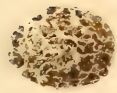
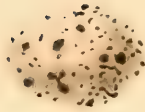
"The bird described by Vieillot under the name of *Fauvette lusciniolæ* or *polyglotte*, (*Sylvia polyglotta*,) is a different species from the *Hypolais rufa*, which Vieillot thought was identical with his *lusciniolæ*. We have just stated how M. Gerbe, while he acknowledged the difference between these two species, considers the *hypolais* as forming a species neglected by modern naturalists, and identical with the pretended species named *icterine* by Vieillot.

"The *Pouillot polyglot* has only at present been observed in a part of France, where it replaces the *hypolais*. The only minute account which exists of it is that given by Vieillot, and it has only recently been figured in a manner which can be recognized.

"Greece contains two species of *Pouillot*, sufficiently different from those of which we have just spoken."

Professor Newton makes the following remark:—"In a few years naturalists will no doubt have a clearer idea of the relative distribution of the two birds." If writers will strictly adhere to the use of "*Hypolais*" as a generic term, and remember that the two closely allied birds as defined in this article are "*Hypolais icterina*" and *Hypolais polyglotta*; that the former is the larger bird, and that its wing extends *beyond* the middle of the tail, we shall, I have no doubt, as Professor Newton has remarked, in time get a clearer view of their "relative distribution."

Salvadori, in "Fauna d'Italia," makes the following remarks:—"Similar to *S. icterina*, from which it differs, however, that it is much smaller, and that it has the first remige strikingly extending (five millimetres) beyond the extremity of the greater wing coverts. Besides these differences, it also differs in the proportionate size of the remiges; (first small, second equal or nearly so to the sixth, third and fourth longest, and equal to each other;) and by the wings, which in repose do not reach the middle of the tail. It may be



1. POLYGLOT WARBLER.

2. BONELLI'S WARBLER. 3. BLACK-THROATED GREEN WARBLER.

added that Giova says the upper parts have a deeper olive green, and less shading off into ash-colour, and the under parts a more vivid yellow. It is found in the same places as *icterina*. There is no statement up to this time of its occurrence in Sardinia or in Malta. It has the same habits as *icterina*. According to Gerbe the eggs have in addition to the brown points some irregular brown lines. I think Bonaparte's *S. icterina*, of the 'Fauna Italica,' refers to this species."

A fine male specimen of *H. polyglotta*, sent to me by Lieutenant-Colonel Irby, and marked "S. Spain—Olcese," has the head, nape, back, and upper tail coverts olive green. Wings and tail hair brown, the secondaries slightly bordered with lighter brown, the primaries and tail feathers more slightly so. Under parts bright yellow, slightly shaded on the flanks with brown; the carpal border yellow. Under parts of tail light brown. Second true wing primary the longest; third shorter than fourth; first and fifth about same length, and shorter than the fourth. Total length four inches and three quarters; carpus to tip of wing two inches and a half; tarsus six tenths of an inch.

The bird figured is from a Spanish specimen sent to me by Lieutenant-Colonel Irby, and was taken at Casa Vieja. The egg is from the cabinet of Mr. Howard Saunders. I have a long series of eggs of "*Sylvia hypolais*," but I prefer one taken with the nest by so good a naturalist as Mr. Saunders.

I have had the benefit of comparing the skin figured of this bird with a specimen marked "Tangier" sent to me by Mr. Dresser, and one marked "Malaga" kindly sent me by Mr. Howard Saunders. The former was fully half an inch shorter, and smaller in proportion, and the latter a quarter of an inch longer, and larger in proportion, than the specimen figured. The *Hypolais icterina*, figured on the same plate for comparison, is from a skin in my own collection from Malta, and presented to me by Dr. Leith Adams.

This bird has been figured by Mr. Dresser, in his Birds of Europe.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus PHYLLOSCOPUS. (*F. Boie.*)

Generic Characters.—Bill slender, rather short; upper mandible decurved from the middle, and compressed towards the tip, which is very slightly notched; nostrils basal, lateral, oblong, and partly operculate, the membrane clothed with small bristle-tipped feathers, the internasal ridge very thin; gape beset with hairs. Wings rather long; the first primary in most species comparatively large, but always much shorter than the second, third, or fourth, one of the two last being the longest. Tail of twelve feathers, slightly forked. Legs with the tarsus scaled in front and rather long, as are also the toes and claws.

BONELLI'S WARBLER.

Phylloscopus Bonelli.

<i>Sylvia Bonelli,</i>	VIEILLOT; Faun. France, pl. 96, f. 3, et Tabl. Encycl. Ornith., 1823.
“ “	KEYSERLING AND BLASIUS, 1840.
“ “	SCHLEGEL, 1844. MÜHLE, 1856.
“ “	BREE; 1st. Edition.
“ <i>natterii,</i>	TEMMINCK; Man., 1820.
“ “	SCHINZ; Europ. Faun., 1840.
<i>Phyllopneuste Bonelli,</i>	BONAPARTE, 1832.
“ “	Z. GERBE; Dict., 1848. DEGLAND, 1849.
<i>Ficedula Bonellii,</i>	SCHLEGEL, 1844.
<i>Pouillot Bonelli, Bec-fin</i>	
<i>Natterer,</i>	OF THE FRENCH.
<i>Berg-Laubsänger,</i>	OF THE GERMANS.
<i>Natterer's Sängcr,</i>	MEYER AND BREHM.
<i>Lui Bianco,</i>	SAVI.

Specific Characters.—Upper parts of the body brownish grey; inferior parts white; rump and upper tail coverts yellow green; wings reach to



BONELLI'S WARBLER.

half the length of tail; first quill longer than the sixth, and equal to the fifth; the second longest. Tail brownish grey, with fifteen dark shaded bands crossing it; feet light brown or grey. Length of an adult male sent me by M. E. Verreaux, four inches and a half; carpus to tip two inches and a half. Tail two inches. Tarsus eight tenths of an inch. Female about same.

THIS pretty little Warbler, the congener of our Willow Wren and Chiff Chaff, has a wide range in the south of Europe. It is found in Spain, in the South of France being common in Provence, in Italy, Switzerland, the Tyrol, and Salzburg. It has occurred in the Crimea, and a single specimen is stated by Glöger to have been captured in Central Germany. It is included in Captain Loche's Catalogue of the Birds of Algeria, and, as Count Mühle remarks, would probably be found farther north, were it not often mistaken for the other Willow Wrens. It passes the winter in Arabia and Egypt. It does not appear to have been found in Greece. Major Irby writes that this bird is "very abundant at Gibraltar, arriving early in April, nesting in fern and bushes about two feet from the ground, leaving in September. Von Heuglin says it appears in Egypt in August and September on its migration. He also found it in Southern Nubia, but it returns to Europe in April. He says it ranges, according to the Berlin Museum, to Senegal. Canon Tristram records it in Palestine, and it ranges in the South of Europe as far as the forty-eighth degree of north latitude.

Salvadori ("Fauna d'Italia") thus writes of this bird:—"I have observed this species in Tuscany and Piedmont, where it is rather common. In April and May I have seen many of them upon the mountains of Clusone, in the Province of Pinerolo, where they occur singly in the chestnut plantations, as well as among the trees in cultivated fields. At intervals they emit a monotonous song, rather sonorous and shrill, which you can hardly believe could proceed from so small a bird. Sometimes you hear a subdued sibillation, like that from the other Warblers of this genus. It makes a nest in the mountains—according to Savi, among the herbs and ferns—having, like the other Willow Warblers, a lateral opening. The nest is made of hay, small roots, and bark, covered externally with dry leaves. The eggs, four or five, are more globose than those of its congeners, white, and thickly covered with liver-coloured points."

The term *Laubsänger*, given to this group by the German naturalists, refers to their similarity in colour to the foliage of large trees which they affect much more than bushes or shrubs. Bonelli's

Warbler is found generally inhabiting wood-covered hills, preferring alders, larches, and hazels, to all other trees. Like the other Willow Wrens, it is also found frequently in gardens, and I have no doubt like them feasts upon the fruit. It is also often found on the banks of rivers.

It is a very cautious bird, and easily frightened, and then is very shy; but if unmolested it will approach dwelling-houses fearlessly.

The song is described by Count Mühle as the most monotonous of all the Laubsängers. It builds its nest in more exposed situations than its congeners, and may be easily found in dry grass meadows. It is especially partial to tall thick ferns, as well as long grass.

Malherbe's statement that it builds in poplars and other thickly-foliaged trees, is I think with good reason, denied by Count Mühle, as being quite different to the habits of the other Willow Warblers.

Thienemann says the nests are woven and bound together with dry twigs, intermixed with *Acinos vulgaris*, and lined with dry grasses, moss, and oak leaves, the entrance wide open. It contains four or five eggs, the ground colour in most of which inclines to brownish; they are also a brownish grey and a reddish brown, delicately spotted, and in many specimens forming a wreath round the greater end.

Brehm, in Bädeler's magnificent work upon the Eggs of European Birds, says of this species, "It nests in barren places, which are scattered over with stones, leaving hollows in the ground, which are overgrown with plants, by which the nest is concealed, the stalks and blades of the growing grass being interwoven with the nest. The eggs are of a white ground, with small brown red spots and dots thickly scattered, and of light or dark colour, wreathing like that of *S. sibilatrix*."

Temminck's account differs little from this.

Degland says the "*Pouillot Bonelli* nests on the ground in the middle of the grass, or at the bottom of underwood; its nest is similar to that of *S. sibilatrix*, and it contains from four to six eggs—short, white or reddish white, with reddish brown spots very numerous, and thickly scattered, especially at the larger end. Long diameter fifteen, shorter twelve millemetres."

The adult male has the head, nape, and upper part of the back bright yellowish olive green; the wing feathers and tail are black grey; lesser wing coverts bordered with greyish yellow green; wings brown, with the primaries bordered with bright yellow green; cheeks grey; from the nostrils a clear white stripe over the eyes. The whole of the under parts of the body clear shining white, washed with greyish on the crop, and yellow on the flanks; tail of a lighter

brown than the wings, the upper three fourths of the quills edged with greenish yellow; beak brownish above, under greyish yellow; feet brownish or dark grey; iris reddish brown.

The female has the white less clear below. Before the first moult the young birds are reddish ash-colour above, silky white below, with the sides of the chest, the flanks, and the under tail coverts, bright russet; cheeks and sides of neck bright reddish ash colour; wing coverts, primaries, and tail quills edged with bright greenish yellow.—(Degland.)

My figure of this bird is from a specimen in my own collection. The egg is from my own collection, it was taken in Steinmark, and sent to me by Dr. Meves, of Stockholm.

Figured also by Temminck and Laugier, pl. col. 24, f. 2. Roux, Orinth. du Daph., pl. 226. Gould, B. of E., pl. 131. Bouteille, Orinth. du Dauph., pl. 26, f. 7. Dresser, B. of E.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus PHYLLOSCOPUS. (*F. Boie.*)

NORTHERN WILLOW WREN.

Phylloscopus borealis.

<i>Phyllopneuste borealis,</i>	BLASIUS; Ibis, 1859, p. 459.
“ “	MIDDENDORFF; Reise, ii., pl. 16, 1, 2, 3.
“ “	NAUMANN; Vogel, pl. 375, 1.
<i>Sylvia Eversmanni,</i>	MIDDENDORFF. Nec BONAPARTE.
<i>Phyllopneuste sylvicultrix,</i>	SWINHOE.
“ <i>kennicotti,</i>	BAIRD.
“ <i>flavescens,</i>	G. R. GRAY.

Specific Characters.—First or bastard primary much shorter than in *S. trochilus*. Yellow band on the wing, formed by the tips of the great wing coverts. Extreme tips of tail feathers sharply defined. Under tail coverts long, yellowish white.

THE term *Phyllopneuste*, applied by authors to this group of the *Sylviidæ*, has been shown to be a nonsense word, void of all meaning; I have therefore followed the plan of joining the Willow Warblers and Goldcrests under the generic term of *Phylloscopus*. This bird is a transitional species between the two hitherto separated genera of *Phyllopneuste* and *Regulus*.

This species was first described by Professor Blasius in “Naumannia” for 1858, in a letter on the “Ornithology of Heligoland,” a translation of which is given in the “Ibis” for 1862. It is not the bird named *Sylvia Eversmanni* by Bonaparte, which is the variety marked β of *Sylvia trochilus*, and is simply the *S. icterina* of Eversmann, re-named *Sylvia Eversmanni* by Bonaparte—because he did not like the name of *icterina*!



NORTHERN WILLOW WREN

Sylvia or *Phyllopneuste borealis* forms, says Blasius, "together with *P. javanica*, a natural group amongst the Leaf Warblers, distinguished from the other species by their considerably stronger body, by the bill being stronger and wider at its base, by the yellow band formed by the tips of the greater wing coverts, by the ends of the quills being slender, and distinctly emarginated at their terminations, by the bright yellow sharply defined tips of the tail feathers, and by the straight tail."

"The shining yellow spot on the wing figured by Von Midden-dorff, in his Travels, vol. i., pl. 16, fig. 2, forms a half perfect bright wing band, and ranges both species next to the *Phyllopneuste pro-regulus*, Pallas, (*Motacilla superciliosa*, Latham, *Regulus modestus*, Gould,) which has two yellow wing bands, and similar emarginated tips to the quills.

"This bird forms with *P. javanica* a natural group under the Foliage Warblers. Upper part of the body and the edges of the wing and tail feathers yellowish grass green; vertex gradually darker coloured, grey green. The tail feathers slender, and have their greatest breadth a fourth from base; the inner web here turns in a disproportionate manner towards the shaft. The whitish tips of the first tail feathers are broadest near the point of the shaft on the inner web. In the above characters it differs entirely from *P. javanica*. The under part of both species is white along the middle, with a faint brimstone yellow flush. Feathers of the sides of the head and the front part of the neck are on the tips and edges clouded with grey, while in *P. javanica* these parts are clear yellowish white. The flanks shade off into the colours of the back, with greenish grey. The small first primary is only a little longer than the upper wing coverts, third and fourth form point of wing, fifth larger than sixth, smaller than second. Tail tolerably straight, two middle feathers somewhat lengthened; beak dark horn blue colour, with yellow flesh-coloured edges. Feet bright-coloured in *javanica*, brown grey; in *borealis* bluish green."

	S. javanica.	S. borealis.	S. icterina.
DIMENSIONS.	Inch. Lines.	Inch. Lines.	Inch. Lines.
Length of wing	2 3.2.	2 5.4.	2 6.0.
Length of tail.....	1 7.8.	1 8 8.	1 11.5.
Head with beak	1 1.3.	1 2.2.	1 0.5.
Beak from nasal orifice	0 3.4.	0 3.6.	0 2.6.
Tarsi	0 9.0.	0 9.0.	0 8.8.
First wing feathers longer than the upper coverts.....	0 3.0.	0 1.0.	0 4.0.

In the "Ibis" for 1871, p. 109, Canon Tristram remarks:—"There has been much confusion respecting *Phyllopneuste Eversmanni*. The bird so figured by Middendorff is undoubtedly distinct from *P. Eversmanni*, Bonaparte, and is perhaps the *P. borealis*, Blasius. It is identical with *P. sylvicultrix*, Swinhoe. A specimen shot at Amoy in April, given me by Mr. Swinhoe, exactly corresponds in dimensions and shade with my Baikal specimens. The autumnal and winter specimens from China are brighter in colour. This is exactly as is the British *P. trochilus*. Some of Mr. Swinhoe's specimens are rather smaller, but being procured at the same time and place with the slightly larger forms, cannot, I believe, be separated. The birds which I have from Lake Baikal as *P. Eversmanni*, Bonaparte, (*P. icterina*, Eversmann,) are totally distinct, and belong to another group, much larger, with a short compressed bill, rounder wing, and are in fact simply the eastern representatives of *P. trochilus*."

Mr. Swinhoe, in his paper on the Birds of China, (P. Z. S., 1863, p. 295,) says that he has nearly two hundred specimens of *P. sylvicultrix*, which we have seen is the same as *P. borealis*. There are some much less in size than others, but neither Mr. Swinhoe nor Mr. Tristram consider them anything more than one form, and this lessens the value of size in determining this species. Mr. Swinhoe remarks that all the Chinese forms of *Phyllopneuste*, where the genus appears to be very common with the exception of the *P. furcata*, show more or less yellowish spots on the wing—a distinction which does not appear to be shared by any of the European forms. This does not apply to the present bird, for not only does Blasius insist strongly upon those creamy bands, but it will be seen by the specimen which I figure, which was captured in Russia, that they are quite apparent; and this was one of the reasons why Blasius, like Mr. Swinhoe, placed this bird next to the *Reguloides* group.

"*P. sylvicultrix*," says Mr. Swinhoe, "visits Amoy in large numbers during its autumnal and vernal migrations. It probably summers in the interior of China, and about Mingpo and Shanghai. I have procured it in autumn in south-west Formosa, and I have reason to believe it winters in the Philippines. Its great destroyer is the *Lanius lucionensis*, Strickland, which migrates about the same time, passing Amoy in immense numbers, and crossing over to the Philippines *viâ* south-west of Formosa."

Mr. Swinhoe seems to think that the Chinese examples of this bird are the same as those described by Blasius above as *Sylvia javanica*, Horsfield, and that it is not improbable that *P. sylvicultrix* spreads in winter through the Malay Islands. With the exception of

P. furcata, all the Chinese species of *Phyllopneuste* are, according to Mr. Blyth and Mr. Swinhoe, distinct from the one found in India.

The above allusion to *Sylvia javanica* cannot, however, be correct, as Horsfield's type of *javanica* is a *Zosterops*, whereas the identity of *S. sylvicultrix* and *S. borealis* cannot for a moment, I think, be doubted.

Dr. Meves, of Stockholm, has paid particular attention to the history of this bird, and has given an excellent figure and description of its frequent occurrence in North-west Russia, in the "Oversigt af K. Katensk-Akad. Förhandlingar," from which I copy the following:—

"I shot this bird when stopping in Twika, near Archangel, on the 8th. of August, in woods, and I heard its song up to Kopatschevskaja, about fifty-one miles southwards. At this place I observed among the upgrown large bushes, four or five green Leaf Warblers, which, judging from the similarity of colour, I at first took to be true varieties of *Phyllopneuste superciliosa*, Cabanis. I found out my mistake when, some years after, I made researches among the fauna of this country, and the observations I made were of the deepest interest to me. After an autumnal hunt I met with some variation in the colours of these birds; some had no apparent eyestreak. The full-grown birds were of the dull green, as in *tenthredo* and *sophyrus*, which became brighter, and then turned into leaden grey.

"The true call-note of this bird is 'tjattsch, tjattsch,' similar to that of *Muscicapa grisola* or *Sylvia atricapilla*, and this I often heard as I passed along my journey. I frequently saw the bird about one hundred versts (forty-nine and a half English miles) from the station of Pleselskaja, and afterwards I saw them no more between this station and the sea.

"Blasius, as *Sylvia Eversmanni*, has mixed up this bird with Eversmann's *Sylvia icterina* as distinguished from *Ficedula icterina*, Vieillot. The bird described by Middendorff as *Sylvia Eversmanni* has much in common with *S. borealis*, and therefore Blasius assumes their identity.

"The male bird which I shot I found on the nest. On the upper parts it was grey green; the outer side feathers in the grey brown wing, and the tail feathers light green; a broad band from the nostrils to the neck olive grey. Underneath, on the sides, streaked with grey, slightly or more so—lighter under the throat and along the body; iris light brown. First wing feather very small; second longer than the sixth, shorter than the fifth; the third longest. Tarsi covered with six plates, the first very small, the second two thirds the length of the tarsus. After the first moult, I observed the males without

bands on the upper plumage, and it then very much resembled *Ficedula coronata* of Temminck and Schlegel.

"The short-beaked form of Middendorff is in some points distinct from the species just described. The following table gives the dimensions of fourteen species from North Russia, Siberia, Manilla, and China."—For the particulars of this table I must refer to Herr Meves' able pamphlet, which is unfortunately, however, written in Swedish, which is understood by very few people in this country.

In the plate accompanying the above description, Herr Meves figures what he describes as distinct from *S. borealis* the bird known as *Sylvia coronata* of Middendorff and Radde, *nec* Temminck and Schlegel. Herr Meves has given it the name of *Phyllopneuste Middendorffii*. It occurs in Ochotzk, Majafloeden, and Birjusa.

A male bird sent to me by Dr. Meves has the upper parts bright olive green; the wing feathers hair brown, but fringed with olive green, so as to give all the wing, except its extremity, when closed, a verdant appearance. Above the eye is a yellow streak, and a similar coloured band crosses the wing near the shoulder twice, giving the double-banded appearance which characterizes the genus *Phylloscopus*. The tail feathers hair brown. All the under parts (except the tail feathers, which are like the wings,) clear yellowish white. Axillary plumes yellow; the rest of the wing underneath slaty brown, fringed with yellow. The first or bastard primary is very short, being only about half an inch in length; the second and fifth equal, and shorter than the third and fourth, which are equal and the longest in the wing. Length five inches; tarsus three quarters of an inch; middle toe, without claw, half an inch, hind claw larger; beak from gape half an inch.

The male bird figured is from the specimen above described, and was sent to me by Dr. Meves, of Stockholm. I have not an authentic egg, but no doubt it is very similar to that of its congener, our well-known Willow Wren.



GREY-CROWNED WARBLER.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus PHYLLOSCOPUS. (*Ray.*)

RUBY-CROWNED KINGLET.

*Phylloscopus calendula.**Motacilla calendula,**Regulus calendula,*

" "

*Sylvia calendula,**Le Roitelet rubris,*

LINNÆUS.

LICHTENSTEIN. AUDUBON. WILSON.

BONAPARTE. BREE; 1st. Edition.

NUTTALL; Man., vol. i., p. 415.

BUFFON, 373.

Specific Characters.—General plumage like that of the other Goldcrests. The silky feathers of the crown of the head vermilion; under parts greyish white. Length four inches and a quarter; wing six inches; beak one third of an inch; tarsus three fourths of an inch.

THE introduction of this beautiful and very distinct species of one of the smallest birds of the new world into the European and British fauna, may perhaps excite a smile of incredulity in some of my readers. But the facts connected with its capture in the Scotch Highlands are conclusive, and cannot admit of doubt.

During my residence in Edinburgh, in 1859, I received a letter from Mr. Robert Gray, of Glasgow, informing me that the "Ruby-crested Wren" had been shot on the banks of Loch Lomond, by Dr. Dewar. The original specimen had been presented to Mr. Gould, but Mr. Gray kindly sent me an accurate and beautiful drawing of the bird, made by Mr. Sinclair, which I have much pleasure in introducing into my work. A notice of its capture I had the pleasure of giving at one of the meetings of the Physical Society.

Having quite satisfied myself by repeated correspondence, that there could have been no mistake about the matter, I shall be content with introducing here part of Dr. Dewar's letter. There may, I think, be some truth in Dr. Dewar's suggestion, that these small birds get a lift *en route* in the numerous vessels which are constantly passing between the two countries. But after all there is nothing very extraordinary in such a migration. The little creature is in America a *migratory bird*, and flies, according to Audubon, from Louisiana and other southern states to Newfoundland and Labrador, where it breeds. It leaves the south in March, and has young in the far north in June. Our friend had evidently mistaken its way back again to the south, and come to the Scotch Highlands instead.

The following is an abstract from Dr. Dewar's letter, dated Glasgow, December 6th., 1859:—"The specimen of *Regulus calendula*, regarding which you write, I shot in Kenmore Wood, Loch Lomondside, in the summer of 1852. Living in its vicinity, I went to the wood for the purpose of shooting some specimens of Goldcrests, which are always there in abundance. After procuring upwards of a dozen, I found, on looking them over, what I took to be the Firecrest: this I safely deposited among my other skins, where it lay till last year, when, on examining it carefully, with the view of exhibiting it at the Natural History Society here, to my surprise my specimen turned out to be, not *Regulus ignicapillus*, as I had supposed, but *Regulus calendula* of North America. I forwarded it to Mr. Gould for examination, to whom I afterwards presented the specimen. Although I look upon the occurrence of *Regulus calendula* in this country as a subject of extreme interest, still it has no claim to a place among our birds, farther than as one of the many stragglers which from time to time find their way to our shores. How this little creature, the most diminutive of all the American species which have visited Britain, found its way across the Atlantic, is almost inconceivable. My belief is that most of the American species which are met with in this country, are aided in their passage by vessels crossing the Atlantic, and I think it utterly impossible for such a tiny bird as this to find its way across without some such assistance. Two or three instances have occurred to my own observation, in which birds were conveyed in this way."

The specimen stated in the first edition of this work to have been killed in Durham, and transferred to the collection of the Rev. Canon Tristram, turns out to be a specimen of the Fire-crested *Regulus*. Dr. Cullen has, however, informed me that a dead specimen was picked up early this year, (1873,) near Kustendji.

Audubon's account of this bird is so interesting that I will take the liberty of making from it a long extract. His writing is always welcome to the real lover of nature.—“The history of this diminutive bird is yet in a great measure unknown, and although I have met with it in places where it undoubtedly breeds, I have not succeeded in finding its nest. On the 27th. of June, 1833, while some of my party and myself were rambling over the deserts of Labrador, the notes of a Warbler came on my ear and I listened with delight to the harmonious sounds which filled the air around, and which I judged to belong to a species not yet known to me. The next instant I observed a small bird perched on the top of a fir tree, and on approaching it, recognised it as the vocalist that had so suddenly charmed my ear and raised my expectation. We all followed its quick movements as it flew from the tree backwards and forwards, without quitting the spot, to which it seemed attached. At last my son John raised his gun, and on firing brought down the bird, which fell among the brushwood, where we in vain searched for it.

The next day we chanced to pass along the same patch of dwarf wood in search of the nests of certain species of ducks, of which I intend to speak on another occasion. We were separated from the woods by a deep narrow creek, but the recollection of the loss of the bird, which I was sure had been killed, prompted me to desire my young friends to dash across and again search for it. In an instant six of us were on the opposite shore, and dispersed among the woods. My son was so fortunate as to find the little *Regulus* among the moss near the tree from which it had fallen, and brought it to me greatly disappointed. Not so was I, for I had never heard the full song of the Ruby-crowned Wren, and as I looked at it in my hand I could not refrain from exclaiming, ‘And so this is the tiny body of the songster from which came the loud notes heard yesterday.’ When I tell you that its song is fully as sonorous as that of the Canary bird, and much richer, I do not come up to the truth, for it is not only as powerful and clear, but much more varied and pleasing to the ear. We looked for its mate and nest, but all around was as silent as death, or only filled with the hum of myriads of insects. I made a drawing of it in its full spring plumage. A month later the young of this species were seen feeding among the bushes.

The Ruby-crowned Wren is found in Louisiana and other southern states from November to March. Near Charlestown they are sometimes very abundant. The old birds are easily distinguished from the young without shooting them, on account of the curious difference in their habits, for while the latter keep together among the lowest

bushes, the former are generally seen on the top branches of high trees. I have not observed a similar difference in *Regulus tricolor*. The rich vermilion spot on the head in the parent species was wanting in the young, that part being of the same plain colour as the back.

I have found this bird in Kentucky also during winter, but generally in southern exposures, and usually in company with the Brown Creeper and Titmouse.

The little bird of which I speak appears to feed entirely on insects and their larvæ, and I have often thought it wonderful that there should seem to be no lack of food for it even during weather sometimes too cold for the birds themselves. It seems to migrate during the day only, and merely by passing from bush to bush, or hopping among the twigs until a large piece of water happens to come in its way, when it rises obliquely to the height of above twenty yards, and then proceeds horizontally in short undulations. It emits a feeble chirp at almost every motion. So swiftly, however, does it perform its migrations from Louisiana to Newfoundland and Labrador, that although it sometimes remains in the first of these countries until late in March, it has young in the latter by the end of June, and the brood is able to accompany the old birds back to the south in the beginning of August.

The adult male in summer plumage has the bill short, straight, subulate, very slender, and compressed, with inflated edges; upper mandible nearly straight in its dorsal outline, the edges scarcely notched close upon the slightly declinate acute tip; lower mandible straight and acute. Nostrils basal, elliptical, half closed above by a membrane covered over by feathers. The whole form is slender, although the bird looks somewhat bulky, on account of the loose texture of the feathers. Legs rather long; tarsus slender, longer than the middle toe, much compressed, and covered anteriorly with a few indistinct scutella; toes scutellate above, the lateral ones nearly equal and free, hind toe stouter; claws weak, compressed, arched, and acute.

Plumage very loose and tufty. Short bristles at the base of the bill. Feathers of the head elongated and silky. Wings of ordinary length, third and fourth primaries longest. Tail of twelve feathers, emarginate, and of ordinary length; bill black, yellow at the base of the lower, and on the edges of the upper mandible. Iris light brown; feet yellowish brown, the under parts yellow. The general colour of the upper parts is dull olivaceous, lighter behind. The eye is encircled with greyish white, of which colour also are the tips of the wing coverts; quills and tail dusky, edged with greenish yellow; the

silky feathers of the crown of the head vermillion. The under parts greyish white. Length four inches and a quarter; extent of wings six inches; bill one third of an inch; tarsus three fourths of an inch.

The adult female in summer plumage resembles the male, but the tints are in general duller, especially the greenish yellow of the wings.

Figured by Audubon and Wilson.

INSECTIVORÆ.

Family SYLVIIDÆ.

Genus DENDROICA. (Gray.)

Generic Characters.—Bill conical, attenuated, depressed at the base, where it is, however, scarcely broader than high, compressed from the middle. Culmen straight for the basal half, then rapidly curving, the lower edge of the upper mandible also concave. Gongs slightly convex and ascending. A distinct notch near the end of the bill. Bristles, though short, generally quite distinct at the base of the bill. Tarsi long, decidedly longer than middle toe, which is longer than the hind one; the claws rather small, and much curved; the hind claw nearly as long as its digit. The wings long and pointed: the second quill usually a very little longer than the first. The tail slightly rounded and emarginate. Colours: tail always with a white spot; its ground-colour never clear olive green.—BAIRD.

BLACK-THROATED GREEN WARBLER.

Dendroica virens.

<i>Dendroica virens,</i>	BAIRD. SCLATER AND SALVIN.
<i>Sylvia virens,</i>	LATHAM. WILSON. AUDUBON.
“ “	GATKE; in Naumannia, 1859, p. 425.
“ “	BREE; 1st. Edition.
<i>Sylvicola virens,</i>	SWAINSON. BONAPARTE. REINHARDT.
<i>Rhimanphus virens,</i>	CABANIS; Mus. Hein., 1851.

Specific Characters.—Plumage above yellowish olive green; throat, black, the feathers in winter being edged with yellowish white; first and fourth primary of equal length, the second and third a trifle longer. Length five inches.

THE lonely rocky island which rears up its bold red-looking front to the eyes of the traveller, as he steams near the mouth of the



Elbe, on his way to Hamburg, seems destined to be a rich field of discovery to the European ornithologist. So many new forms have lately turned up in Heligoland, that the celebrated Professor of Brunswick—Blasius, has been induced to make an excursion thither, and examine for himself the treasures which have been collected by the resident naturalist, Herr Gätke. The results of this visit, as well as that of Herr Gätke's experience, have been communicated to the ornithological world in the last number of "Naumannia."

Blasius gives at least four species entirely new to Europe, of which two are American forms; while Herr Gätke mentions no less than twenty-three species which he considers new to Europe, observed in the island up to 1858; and he concludes his paper with the very natural exclamation, what will 1859 bring forth?

The most interesting part of these papers is the number of American species which the lists contain: among them is the subject of the present notice. Perhaps the evidence adduced by these lists may rather remove the hasty scepticism with which my introduction of the Bald Eagle into the European fauna was met.

Dendroica virens is an inhabitant of America generally. The specimen which Herr Gätke records was killed on Heligoland, on the 19th. of October, 1858, by a small boy with a pea-shooter; and in order that there may be no mistake about the determination of the species, I will here give a verbatim translation of Herr Gätke's very clear description. The bird is in its winter plumage, and thus differs from my figure, which is in its summer dress.

"The upper part of the head, back, and rump, a beautiful clear yellowish olive green, more inclining to yellow towards the rump; forehead, a broad stripe over the eyes, and sides of the throat, very beautiful clear yellow; from the beak to the eyes is a blackish stripe, which is continued on the under side of the eye, and terminates, or is blended with the colouring of the ear coverts. Chin, and front of head and neck, are clear black, the feathers having yellowish white edges, which from the chin very much conceal the ground colour. According to Wilson these bright borders wholly disappear in summer, and leave these parts clear and shining black, (see figure,) which has given to the bird its name of 'Black-throated Green Warbler.' Sides of breast, belly, and under tail coverts are yellowish white, having on each side two broad black stripes.

Wing and tail feathers are black, with bluish ash grey borders, which on the back of the wing become almost white; greater wing coverts have broad white tips, the smaller entirely white, by which two shining white bands across the wing are formed. Both the outer tail feathers

are almost entirely white, having on the outer web only a faint black stripe, which is broader at the tip, and towards the rump is almost lost in the black shaft; the third tail feathers also have on the inner webs a large white spot. Beak, feet, and iris, brown black.

The form of this little bird is elegant, though the beak is rather strong in proportion to the size of the bird; the feet are somewhat feeble. The tail is almost evenly notched; the outer pair of feathers are rather the shortest. Wings are tolerably pointed; the first and fourth primaries are of equal length, the second and third only a trifle longer; the second, third, and fourth, are near the tips of the outer web very strongly notched.

The whole length of the bird, from the forehead to the point of the tail, five inches; length of the wing in repose two inches and six lines; of the tail two inches; an inch of the tail uncovered by the wings. Beak five lines; tarsus nine lines; middle toe three lines; claws two lines; hinder toe three lines, and the very curved claw of ditto two lines and a half."

The bird has been preserved in spirits.

Dendroica virens belongs to the group of Leaf Warblers. Its habits are so well described by Audubon, that I take the liberty of transcribing the following from his work upon the "Birds of America."

"I have traced this species from Texas to Newfoundland, although at considerable intervals, along our Atlantic coasts, it being of rare occurrence, or wanting in some parts, while in others it is abundant: but in no portion of the United States have I met with it so plentiful as around Eastport, in Maine, where I saw it in the month of May. Many remain all summer in that State, as well as in Massachusetts and the northern parts of New York; and some are found at that season even in the higher portions of Pennsylvania. On the coast of Labrador it was not observed by me or any of my party, and it is not mentioned by Dr. Richardson, as having been seen in the Fur Countries. Its habits are intermediate between those of many of our Warblers and the Vireos, the notes of which latter it in a great measure assumes.

It usually makes its appearance in Maryland and New Jersey about the first week in May, when it is observed to be actively engaged in searching for food, regardless, as it were, of the presence of man. Its movements when proceeding northward are rapid, and it advances through the woods solitarily, or nearly so, it being seldom that more than two or three are found together at this time, or indeed during the breeding-season, at which period each pair appropriates to itself a certain extent of ground. Its retrograde march is also rapid, and

by the middle of October they all seem to have passed beyond the limits of our most southern States.

The food of this species consists during the summer months of various kinds of flies and caterpillars, many of the former of which it captures by darting after them from its perch, in the manner of Flycatchers and Vireos, emitting, like them also, a clicking sound from its bill. In autumn it is often seen feeding on small berries of various sorts, in which respect also it resembles the birds just mentioned.

I never found the nest of this bird, of which, however, Mr. Nuttall has given a minute description, which I shall here, with his permission, place before you.—‘Last summer, 1830, on the 8th. of June, I was so fortunate as to find a nest of this species, in a perfectly solitary situation, on the Blue Hills of Milton. The female was sitting, and about to hatch. The nest was in a low, thick, and stunted Virginia juniper. When I approached near to the nest the female stood motionless on its edge, and peeped down in such a manner that I imagined her to be a young bird; she then darted directly to the earth and ran, but when deceived I sought her on the ground she had very expertly disappeared, and I now found the nest to contain four roundish eggs, white inclining to flesh-colour, variegated more particularly at the great end, with pale purplish points of various sizes, interspersed with other large spots of brown and blackish. The nest was formed of circularly entwined fine strips of the inner bark of the juniper, and the tough white fibrous bark of some other plant, bedded with soft feathers of the Robin, and lined with a few horse-hairs and some slender tops of bentgrass, (*Agrostis*.)’

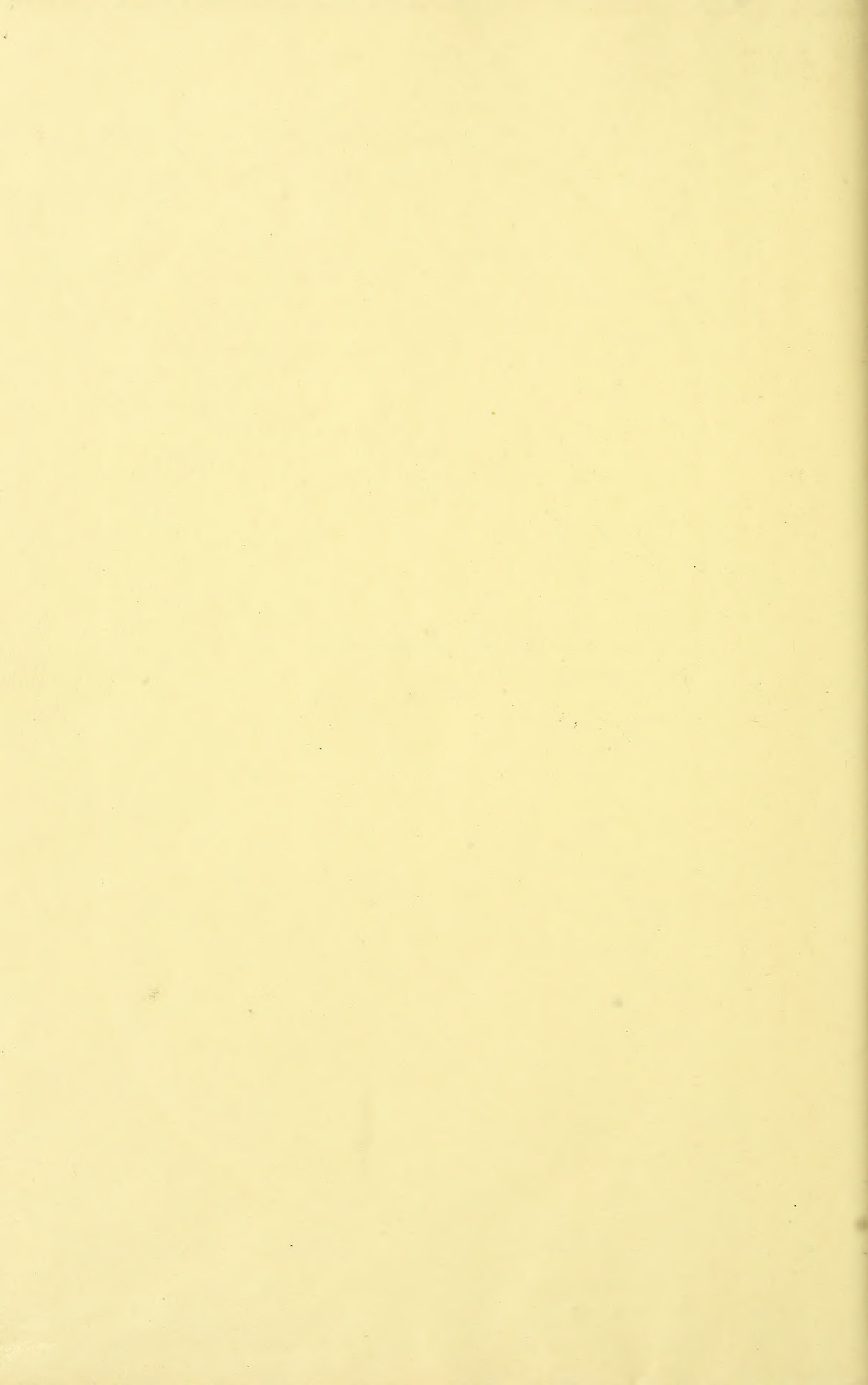
My friend describes the notes of this species as follows:—‘This simple, rather drawling and somewhat plaintive song, uttered at short intervals, resembles the syllables ‘te dé territica,’ sometimes ‘tederisca,’ pronounced pretty loud and slow, and the tones proceeding from high to low.’ These notes I am well acquainted with, but none can describe the songs of our different species like Nuttall.”

My figure is taken from Audubon’s large folio work, the drawing being kindly executed for me by Mr. Sinclair, of Glasgow, to whom I shall also on another occasion have to express my obligations.

Figured also by Wilson and Nuttall.

The egg is from my own collection, and is one of a nest of five sent me by Mr. Buckley, of Birmingham.

B. Fawcett, Engraver and Printer, Driffeld.



CONTINUED

